

Medicine

Sciatica*

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We doctors have an amazing ancestry and we derive our family characteristics and our methods of treatment from strange sources. Back through the mists we see the Witch Doctor with his smoke and his tom-tom. He bequeathed a quantity of hocus-pocus, the remnants of which still cling to us. The pagan priest who, in the direct line of our descent, has left us a shroud of mysticism and an odour of sanctity though much attenuated in our day. These two together with the herbalist and the alchemist tintured by a dash of Greek philosophy and Roman materialism, have been blended through the ages to make the physician. The craft of surgery is made of less subtle stuff. The medieval army surgeon supplies his dash and his courage. The barber of old has left a legacy of realism and dexterity. These, on a background of better business methods, account for much that we see now in this, the veritable golden age of medicine.

We know of many other interesting characters in our family tree: ecclesiastics, wizards, magicians and a great variety of charlatans. But it is safe to say that no matter what their motives may have been—hopes of eternal salvation or the love of lucre—all of these must have given some thought to the treatment of sciatica. Low back and sciatic pains of various sorts have tormented our progenitors since they first began to walk on their hind legs; lumbar osteo-arthritis is one of the commonest and oldest findings of the palaeopathologists; even the dinosaur had back-ache.

The ancient origin of "sciatica" as a clinical diagnosis, the fantastic ideas as to its cause and the heroic treatment that were approved from 2,000 to 200 years ago are well shown in an extract from the textbook of Richard Mead (1673-1754). He says:

"Of all these pains the most severe is that, which the Greeks name "ischias," and we corruptly "sciatica" because it seizes the hips; and it is attended with the greater difficulty, because it is most commonly the consequence of chronical diseases, by the morbid matter being thrown on this part. This disease, when grown inveterate, weakens the thigh and leg, and makes the patient lame: and sometimes also the head of the thigh-bone slips out of the socket, and then the thigh soon wastes away."

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After speaking of cupping, blistering and plaisters, he goes on to say:

"But nothing gives so much relief, in an obstinate case especially, as a seton passed below the part affected, in order to give vent to the morbid humor. But, if this operation be thought to be too cruel and troublesome for the necessity of it, it will be of use to make an issue, with a caustic in the inside of the thigh above the knee; which must be kept open till the disorder is quite removed. Celsus², following the example of Hippocrates³, advises to apply the actual cautery in three or four places upon the hip. And indeed, no remedy would be more efficacious than this, if patients could be reconciled to it; for how terrifying soever the sight of red-hot iron may appear, the pain from the application of it would be much sooner over, than that which is raised by the common caustics."

"I now pass to internal remedies, the chief of which are bleeding and purging. Of cathartics, the most efficacious are dulcified mercury six times sublimed, and the electuary of scammony; either of which must be often repeated, according to the patient's strength. And in the intermediate days of purging, the proper medicines are such as are diuretic and laxative at the same time. Of this class, I give the preference to the volatile tincture of gum-guaiacum, or the balsam of guaiacum."

All the writers up to recent times are quite as vague as the ancients as to cause and obviously distracted when discussing treating. In 1892 Osler had no suggestion as to cause but says that pelvic disease, rheumatism, gout and syphilis should be thought of. Among methods of treatment he, of course, mentions the Weir Mitchell panacea for all disease of the day—prolonged bed rest. Under local treatment he is still with Hippocrates and discusses hot irons. He also mentions thermocautery, blisters, deep injection of the nerve with cocaine, morphine (cautiously!), distilled water and chloroform. He says electricity is an uncertain remedy and should be combined with massage. Stretching of the nerve, he says, is sometimes successful. Through all eight editions Osler made no change till the last (1918). He then adds that the spinal column should be carefully examined because some cases are relieved by orthopaedic procedures. In the 1925 edition of Osler (McRae) the article is rewritten. The possibility of foci of infection is emphasized and an additional local treatment is given exposure of the nerve and incision of the sheath.

The whole subject of sciatica has been brilliantly clarified since the demonstration of pathological changes in the intervertebral discs variously called "degeneration," "rupture," "herniation," "retro-pulsion," etc. Goldthwait (1911) is usually given the credit of having first described the lesion but did not associate it with ordinary sciatica. G. Mauric (Paris, 1933), published a monograph reviewing the subject. Mixer¹ in 1934 and in subsequent years created a definite clinicopathological syndrome. Diagnosis by the use of lipiodol was well described in 1936. With the knowledge gained by myelograms and surgical operations, the clinical picture has become so well defined that diagnosis may be readily made in the vast majority of cases by a simple history and physical exam. It can be said that recurrent or chronic pain of root distribution in the lower limb is likely due to retro-pulsion of a disc if one of the following conditions is not present:

(1) Other obvious causes for root pain, i.e., gross disease of the lumbar spine (e.g., tuberculosis, fracture, secondary neoplasm, collapse from decalcification).

(2) Cord tumor.

(3) Much fibrositis in the back or thigh as evidenced by "trigger points" causing radiation down the lower limb.

(4) Definite psychoneurosis with or without a compensation component.

The diagnosis is much strengthened by:

(1) Absent ankle jerk.

(2) Paraesthesias in area of pain.

(3) Impaired superficial sensitivity in pain area.

(4) Wasting of muscles involved.

(5) Positive myelogram.

The discovery of a removable cause for sciatic pain has set off a bloody revolution in its treatment. For a time a vast number of patients with sciatica or something like sciatica were subjected to laminectomy, spinal fixation and other surgical procedures; one operator even evolved the method of going in through the abdomen and cleaning the disc out by the anterior approach. At first, this exuberance lead to some ill advised surgery; so much so that some hospitals decreed that no disc operations could be done until the patient had first been passed by the Department of Medicine. This interdiction, of course, aroused the righteous indignation of neuro-surgeons, orthopaedic surgeons and others who had become expert at the technique. No doubt they felt that, since physicians had made no progress with sciatica after 2,000 years, they should not be set up as referees. This argument between physicians and surgeons, of course, is not of any significance among those who are candid and well informed. However, it does recall a similar and more violent clash that

occurred four hundred years ago. In about 1500 the physicians of London decided that surgeons should not be allowed to treat sciatica. John Cajus (1510-1573) was then President of the Royal College of Physicians; an account of the outcome of the disagreement follows:

"He (Cajus) was a zealous defender of what he considered the rights and privileges of the physicians; and in a difference arising between these and the surgeons, in the time of Elizabeth, as to the propriety or lawfulness of the latter to administer internal remedies for the sciatica. Cajus appeared before the Lord Mayor and other Queen's delegates, in his character as President of the College of Physicians, where he contended so stoutly and so learnedly in favor of the members of his body, that it was determined by the Queen's Commissioners, to be unlawful for the surgeons to practice in such cases. The Bishop of London, the Master of the Rolls, and others, unsuccessfully advocated the cause of the surgeons on this occasion."⁵

Has surgery ever had more distinguished advocates! But John Cajus, though he was obviously wrong, prevailed.

The results of operations in well chosen chronic resistant cases are undoubtedly most gratifying. It can be said that the simpler methods for removing the offending herniation will cure the sciatic pain in most cases. The effect on the lumbar pain which is so often associated is not so certain. Figures that are commonly submitted to show the percentage of cure by surgery are impossible to assess. Long before surgery was used the harassed physician could always take refuge in the contention that the condition would ultimately "yield to treatment" which in most cases actually means spontaneous cure. Practically no one was ever left with a permanent disability though many cases had pain off and on for years. The multiplicity of alleged medical cures confirms the fact that the condition usually cured itself. Any one who has had lumbago or sciatica will have been impressed by the fact that almost every lay person who sees him limping will immediately offer a method of effective treatment. Every medical man also has had firmly fixed ideas as to effective treatment. Robert Graves (1797-1853) cured himself with a very small quantity of "hydriodate of Potash." His account of his own illness is a fine example of the charming, discursive and circumstantial method of lecturing.

"I first became acquainted with the remarkable efficacy of this medicine in lumbago and sciatica under the following circumstances. In the memorably wet month of July, 1839, I was called out of bed at midnight, to visit a lady in the country and the vehicle sent to convey me was a half-covered car. The cushions were very damp, and

I had not proceeded half a mile before I was attacked with lumbago so severe that I could scarcely walk when I arrived at my patient's residence. Next morning I was better, having perspired much during the night; but still the pain was troublesome, and as the season continued unusually cold and wet (indeed, it scarcely ever stopped raining from the 8th of July, 1839, to the 19th of February, 1840), and as my duties exposed me much to the weather, and prevented me from giving myself the necessary rest, my lumbago continued to increase again, and in about a month the gluteal and sciatic nerves of the left side became engaged; I noted particularly, that the pain spread very gradually downwards from the lumbar region, so that it took a week or ten days to arrive at the ham, and still a longer time at the ankle; I was then quite lame of the left leg, suffered much pain in bed, and had become so helpless, that I had to get my servant to draw on my stockings; during all this time my general health was perfect; appetite good; digestion regular; and no deviation of the urine from the natural appearance. I mention this, because several of my medical friends advised me to take antibilious aperients, and advice founded on Abernethy's doctrine, that many local affections proceed from stomach derangement.

"I was at last forced to try something for my relief, and had myself cupped, and tried the warm douche and Dover's powder, but without any good effects. I began now to fear that I should be forced to give up all professional business, and confine myself to the house for many weeks in order to go through a mercurial course, combined with proper topical applications, when, happening to meet the late Mr. Ferguson, of Kildare Street, he recommended me to try hydriodate of potash, of which he was good enough to send me a drachm dissolved in a pint of decoction of sarsaparilla. I took quarter of this daily, and may literally apply here the common phrase, that I felt each dose do me good; in truth, the benefit I derived was perceptible hourly, and was so rapid, that in four days all traces of the lumbago were gone, and my lameness had quite ceased. I did not take more than one bottle—one drachm of the hydriodate, but the good effect continued after I ceased taking it, and in less than a week I was perfectly well. Subsequent experience enables me to recommend this medicine strongly, in subacute and chronic lumbago and sciatica.

No doubt Dr. Graves went through his life completely convinced that potassium iodide has some special action on sciatica. A multitude of other remedies have as good a claim; some patients have been cured by a game of golf, some by chiropractors, some by heat and some by faith.

The chief difficulty in any given case is to decide when to advise operation. Left to themselves or given rest, posturization and physio-

therapy, the vast majority will recover in a few weeks or months, as they did before retropulsion was dreamed of. Unfortunately there is no way of predicting when recovery may be expected. Some very acute cases improve in a few weeks; other milder cases may continue subacute or recurrent, over many years. It is decidedly not proper to sell the operation on the slogan: "It will never cure itself." That is simply not true. Also it is not justifiable to use the argument that the operation will get a man back to hard manual work. This may happen if root pain dominates the picture. But in patients who have had chronic backache or attacks of lumbago with root pain as an occasional complication, the operation is often disappointing. Each case is an individual problem and resolves itself into a game of balancing the amount of disability produced in the particular individual in his particular environment against the reasonable expectations of operation. To "let the patient decide" is shirking responsibility and appointing a prejudiced and incompetent arbiter.

Unfortunately a small percentage of cases "recur" or develop a second disc, some have persistent backache. But in spite of occasional failures there can be no doubt that surgical treatment discreetly applied has been the only real contribution to the treatment of sciatica.

References

1. Mead, Richard: *Medical Precepts and Cautions*, 2nd ed., 1755.
2. Lib. iv., cap. 22.
3. Aphor. vi, 60.
4. Mixer, W. J. and Barr, J. S.: *New Eng. J. of Med.*, 211: 210-215, 1934.
5. Pettigrew, Thos. J.: "Medical Portrait Gallery," Fisher, Son & Co., London (about 1850).

Medical Mycology

J. C. Wilt, M.D.

Fungus diseases are classified clinically into superficial, intermediate, and deep. The superficial ones are among the commonest and oldest diseases of man. Very few people have not been affected at one time with a tinea infection, most commonly tinea pedis or inguinale. Tinea capitis, ungues and barbae, are not uncommon however.

The organisms associated with the superficial diseases are included in three genera: the Trichophytons, Microsporums and Epidermophytons. In recent years a good deal has been done in eliminating synonyms and in simplifying the classification.

Monilia infections of mucus membranes of mouth, vulva, vagina and rectum occur in patients under prolonged antibiotic therapy. This is due to suppression of the normal bacterial flora of these membranes by the antibiotic. The depressant action of the bacterial flora on the monilia being removed,

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the monilia reproduce in sufficient numbers to cause a stomatitis, proctitis or vulvo-vaginitis.

The intermediate group of organisms infect the subcutaneous tissues primarily, but eventually involve superficial and deep tissues. Cervico-facial actinomycosis is the only member of the group seen in Manitoba commonly. Astinomycosis of lungs and cecum occurs less frequently.

Actinomyces was at one time considered to be a parasite of grain stalks when these were masticated, the organism sometimes entered the tissue through breaks in the mucus membrane, initiating the disease. It is now known that many people carry actinomyces on the mucus membranes of gums, and that following trauma to the membrane, an infection may develop. Respiratory infection is caused by inhalation of organisms and intestinal actinomycosis by swallowing them. For an infection to become established there must have been some preceding trauma or pathological process.

Other organisms in the intermediate group include Chromoblastomycosis, Sporotrichosis, and Maduromycosis.

The deep group of fungi include North American Blastomycosis, Histoplasmosis, Cryptococcosis, and Coccidioidomycosis. While active Coccidioidomycosis has not been reported here, a few cases of the other diseases have been seen.

North American Blastomycosis may be confined to the skin, or be disseminated throughout the body. Patients with cutaneous infections usually carry on for years with KI therapy, and desensitization with vaccine. The disseminated form is practically always fatal within a year.

Histoplasmosis is characterized by emaciation, leukopenia, anemia and irregular fever. It is fairly rapidly fatal and practically never diagnosed prior to autopsy.

Cryptococcosis is usually manifested as a central nervous system disease, but occurs also in a pulmonary or disseminated form.

Occasionally in the culture of sputum from patients with chronic chest conditions *Candida albicans* or *Aspergillus* is constantly recovered in large numbers. These organisms under such circumstances are usually merely secondary to a more serious primary condition such as tuberculosis or cancer.

Some of these diseases are relatively uncommon; undoubtedly more cases would be diagnosed if the conditions were suspected more often, and the examination of clinical or pathological material.

Some clinical conditions in which suspicion should be aroused include chronic ulcers, abscesses, and fistulae, chronic cutaneous eruption, scalp infections and chronic chest conditions. Pyrexia of unknown origin, lymphadenopathy and splenomegaly, unexplained by ordinary methods, may be due to fungus infections. Tissue showing an unexplained chronic granulomatous reaction to microscopic examination should be emulsified in 10% KOH and examined for yeast and mycelia. Recently the periodic acid-Schiffs stain has been advocated on all tissue sections of chronic granulomas.

The most important laboratory procedure is the isolation and identification of the organism. Hair scrapings, aspiration material or sputum specimens are placed in 10% KOH and examined directly. The material is also cultured on Sabouraud's agar. Recently slide cultures have been used on routine material to facilitate the diagnosis.

Skin tests have been used considerably. They may establish whether the patient has, or has not contacted the disease, but do not establish the diagnosis of an active infection. In practice their value is limited.

Serological tests such as the complement fixation reaction are much in the same category as the skin tests. They are usually considered to be somewhat more specific but are a good deal more difficult to carry out.

The prognosis of the different diseases varies greatly. The superficial and intermediate group are usually not fatal but are chronic and sometimes disabling. The deep fungus diseases are usually fatal, very often widely disseminated at the time of diagnosis.

Summary

A brief review has been given of fungus infections of man. It has been suggested that more of these diseases would be discovered if they were considered more frequently by the clinician and pathologist.



Obstetrics

The Physiology of Reproduction The Endocrine Glands and Their Secretions

From the Faculty of Post-Graduate Studies of the Winnipeg
General Hospital in the Department of Obstetrics and
Gynaecology.

Section "A" No. 5

The Adrenal

Margaret Ledingham, M.D.

Gross Anatomy

The adrenal glands are flattened bodies situated in the retroperitoneal tissue along the cranial ends of the kidneys. They are usually triangular or crescentic. The two glands weigh together from 10 to 12 grams. On the cut surface the naked eye readily distinguishes the yellow cortex from the reddish-brown medulla. In a human embryo of 8 weeks the adrenal gland is as large as the kidney. After birth the adrenal gradually diminishes in size, and in the adult it is only 1/30 as large as the kidney. The large size of the fetal adrenal is due to the presence of a thick boundary zone between the definitive cortex and the medulla, this is called the fetal cortex. This zone involutes during late prenatal and early postnatal life.

Histology (Figure 1)

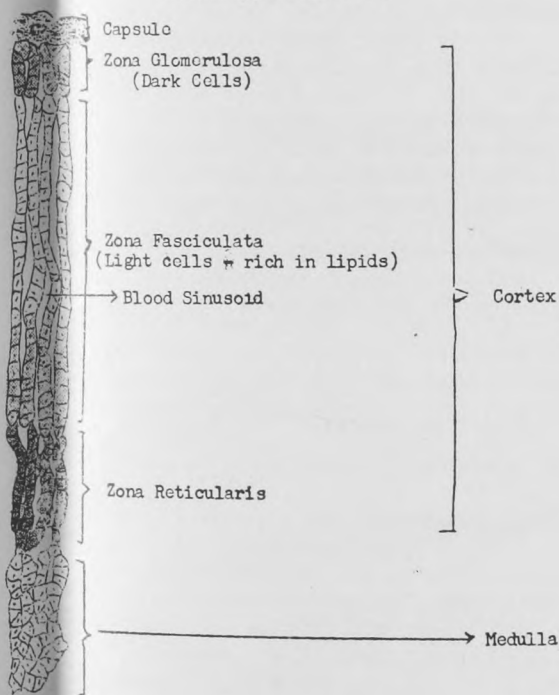


Fig. 1 - Histologic Appearance of the Normal Adrenal

Medulla. The medullary cell is polygonal. It measures about 18-30, u., and its vesicular nucleus

about 6-8 u. in diameter. One of its most characteristic features is the chromaffinity of the cells, which is a good index of their adrenaline content.

Cortex. The cortex consists of 3 structurally different layers. The external zone, immediately under the connective tissue capsule, is called the zona glomerulosa. Its cells are small, poor in cytoplasm and more or less irregularly arranged. The nuclei are small and rich in chromatin. Inside this layer is the zona fasciculata, which consists of regular rows of large polygonal cells with vesicular nuclei. The cell columns are radially arranged, and run parallel with each other, from the outer zone towards the medulla. Between them are radially coursing sinusoids, whose walls are studded with reticulo-endothelial cells. The zona reticularis is the innermost layer of the cortex, immediately adjacent to the medulla. It consists of very irregular strands, which form a network of small cells with dark nuclei. Many melanin and iron-pigment phagocytes are found in this zone. The development of the glomerulosa and reticulosis are subject to great individual variation, but the fasciculata is always the widest zone.

Because of the numerous lipid granules, the cortical cells, especially in the fasciculata, have a vacuolized cytoplasm and are designated as spongiocytes.

Vascular Supply

The adrenals are among the most highly vascularized organs of the body and contain 6 to 7 c.c. per gram of tissue per minute. The human glands receive branches from the inferior phrenic arteries, the aorta, the renal arteries and from other large arterial trunks passing close to them. These arteries form a rich subcapsular plexus, from which the blood flows through the cortical sinusoids into the medulla, where it gathers into a large central vein, leaving the organ at the hilum. The right adrenal vein discharges its blood directly into the inferior vena cava, while the left empties into the renal vein. Hence, tumors of the left adrenal tend to invade this vein. There are important sphincters in the wall of the central vein. Their periodic contraction and relaxation help to collect and release large amounts of hormone saturated blood.

Embryology

The adrenal cortex is derived from mesoderm, the medulla from ectoderm. In lower animals the cortex and medulla are quite separate. Selye suggests that the anatomic union of the two glands in man is advantageous because, during emergencies, relaxation of the sphincters in the adrenal veins suddenly supplies the general circulation with large amounts of both cortical and medullary hormones, stored in the glands spacious sinuses.

Nerve Supply

The adrenal nerves are derived from the great splanchnic, after passing through the suprarenal plexus. They are preganglionic, medullated fibres which are not interrupted by cell stations along their course. Actually the nerve cells, and the embryologically related chromaffin cells of the medulla, correspond to the ganglion and the post ganglionic fibres. The cortical cells receive no important nerve endings.

Biogenesis and Fate in Body of Adrenaline and Corticoids

Adrenaline. The likeliest precursor of adrenaline is thought to be tyrosine, the reaction of formation being tyrosine — dihydroxy phenylalanine (dopa) — adrenaline. Adrenaline is detoxified by various tissues. Urinary secretion and oxidation are important in its elimination.

Corticoids—There are two theories about the biogenesis of corticoids—(1) that they are synthesized from smaller molecules and (2) the more popular idea, that they are formed from cholesterol. They are thought to be inactivated by the liver.

Utility of Adrenaline to the Organism

A wealth of experimental evidence has been accumulated which indicates that the medulla does release increased quantities of adrenaline during periods of stress and strain. This increased adrenaline brings about the following adjustments:

1. The carbohydrate stores of the liver are mobilized, and the elevated sugar content of the blood makes more fuel available for muscular work.
2. The efficiency of the cardiovascular system is increased—the blood pressure is elevated, the heart rate accelerated, the blood vessels to the heart and skeletal muscles dilated.
3. The coagulability of the blood is increased, so hemorrhage is not as likely.
4. The splenic capsule contracts and forces reserve red blood cells into circulation, so the oxygen carrying capacity of the blood is increased.
5. An increased intake of oxygen is made possible by dilatation of the respiratory passages and by increased rate and depth of breathing.
6. The pupils dilate and the hairs become erect.
7. The intestinal walls are inhibited and the sphincters closed.
8. The detrusor muscle of the urinary bladder is relaxed and the sphincter and trigone contracted.

Critical Evaluation of the Emergency Theory (Turner)

Few direct experiments have been designed to test this theory. In mammals, where the medullary tissue is contained within the cortex, it is extremely difficult to ablate the medulla and at the same time not impair the cortex.

Totally adrenalectomized dogs and cats, receiving sufficient amounts of cortical extracts, give all the reactions enumerated by Cannon and his school as the basis for their emergency theory. Dogs deprived of their medullae, are as capable of performing sustained work on a treadmill as are normal animals. The blood of de-medullated rats clots as promptly during emotional excitement as that of sham operated rats. Furthermore, the total work performance of adrenal medullated rats is equal to that of normal animals. Such demedullated rats show no diminution in spontaneous activity, and are not unlike normal rats in their capacity to swim to exhaustion.

Although the emergency theory appears reasonable and logical, it should not be accepted fully until more direct evidence is forthcoming to support it.

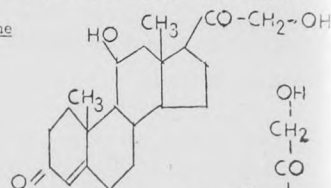
Cortical Hormones—Classification, Chemistry, Function

The adrenal cortex produces a number of steroid hormones which influence many physiologic functions. It is stimulated morphologically and functionally by the cortico-trophic hormone of the anterior pituitary gland.

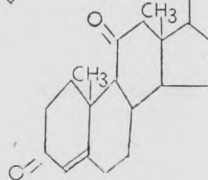
There is suggestive evidence that the steroid hormones produced in the adrenal cortex may be derived from cholesterol. Under a variety of conditions of stimulation, the cholesterol and ascorbic acid content of the adrenal cortex falls, coincidentally with an increased secretion of cortical hormones.

Twenty-eight steroid substances have been isolated from the adrenal cortex in pure crystalline form. Six or seven of these have been found to be active, either in prolonging life in adrenalectomized animals or in preventing or relieving individual manifestations of deficiency. The most important of these may be grouped as:

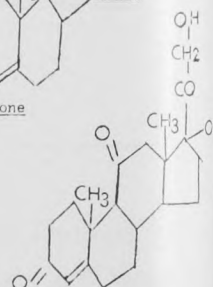
1. Cortico sterone



2. 11-Dehydrocorticosterone



3. 11-dehydro 17 hydroxycorticosterone Compound E or cortisone



4. 17 hydroxycorticosterone, compound F

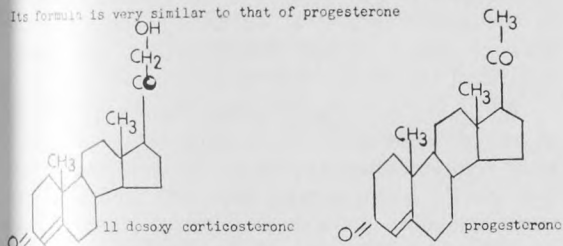
A. Sugar Hormones, II Oxysteroids or Corticosterones

These have in common an oxygen atom at carbon 11.

The corticosterones are concerned chiefly with carbohydrate metabolism. They favor gluconeogenesis, probably chiefly from protein and also appear to influence oxidation of glucose in the tissues. They are also highly effective in postponing muscular fatigue.

B. Salt Hormone, II Desoxycorticosterone

Its formula is very similar to that of progesterone



This hormone has the following effects:

1. Causes retention of Na and Cl and H_2O in the body and increases the plasma volume.
2. Lowers concentration of K in the body fluids.
3. Given in excessive amounts it may produce edema, hypertension and congestive heart failure.
4. With the amorphous fraction it is capable of restoring renal function in the adrenalectomized animal.
5. Is necessary for the normal growth of young adrenalectomized animals.

C. The Amorphous Fraction (Kendall)

This includes certain biologically active, unidentified compounds present in the mother liquor of cortical extract after all of the crystalline steroids have been removed. It contains hormones that influence renal function, but not salt and water metabolism. It is very potent in its ability to restore life in the adrenalectomized animal.

D. Sex Hormones

There are many observations that indicate that the adrenal cortex is intimately involved in the formation and metabolism of certain sex steroid hormones.

1. Estrogens and androgens are excreted by castrate animals.
2. Estrogens, androgens and progesterone have been isolated from the adrenal cortex.
3. Excretion of estrogens, androgens or pregnanediol may be markedly increased in patients with adrenal cortical tumors or hyperfunction.
4. The 17 ketosteroid excretion is markedly decreased in adrenal hypofunction.
5. The cortical and gonadal hormones are closely related chemically.
6. The adrenal cortex undergoes hyperplasia during pregnancy.

7. Animals stand adrenalectomy during heat or pregnancy better than at other times.

8. Progesterone lengthens the life span of adrenalectomized animals.

Methods for Evaluating Adrenal Cortical Function

At the present time, no practical method is available for isolating the various cortical hormones from body fluids for chemical purposes.

Consequently, methods for estimating adrenal cortical function are largely indirect in nature and involve either:

(a) Tests of certain phases of carbohydrate, NaCl, K or H_2O metabolism; (b) Quantitative determination of certain urinary steroids which originate at least in part in the adrenal cortex.

Metabolic tests include:

- (1) Glucose tolerance test.
- (2) Insulin tolerance test.
- (3) Salt excretion test (Cutler) (Cantarow).
- (4) Water excretion test (Kepler).
- (5) Basal metabolism test.
- (6) Study of the rise in the urinary uric acid—creatinine ratio following administration of corticotropic hormone has been suggested as a means of investigating the reserve functional capacity of the adrenal cortex. Subjects with primary adrenocortical insufficiency failed to show this response.

Determination of Urinary Steroids

(1) **II-Oxysteroids in Urine**—Extracts of urine are injected into suitably prepared adrenalectomized mice; corticoid activity being gauged by the consequent increase in liver glycogen. Increased values have been found in subjects placed under conditions of stress, as after operations, injury, infections, exposure to cold, etc.

(2) **Excretion of Estrogenic or Androgenic Substances**—Some of the activity is due to cortical steroids.

(3) **Excretion of Pregnanediol**—Increased in adrenal cortical hypertrophy. May be from progesterone or adrenal steroids.

(4) **17 Ketosteroids**—Some of the adrenal cortical hormones are excreted in the urine as 17 Ketosteroids, particularly as B-17 Ketosteroids. It is believed that in the female practically all and in the male about 2/3 of the urinary ketosteroids originate in the adrenal cortex.

Diseases of the Adrenals

A. Hypocorticism—Addison's disease (a) Acute, (b) Chronic.

Causes: It may be produced by a variety of adrenal lesions, e.g. (1) The primary contracted adrenal—the result of chronic inflammatory and degenerative lesions of unknown etiology. (2) Tuberculosis.

Incidence—Pure Addison's disease is rare, but the various forms of Addisonian Disease are fairly

common complications of infections, intoxications and other exhausting diseases.

It may occur at any age. Is more common in males than females in ratio of 2 to 1.

Temporary Addisonian Disease is frequently seen in the course of pregnancy, apparently because the corticoid hormone requirements rise during pregnancy. This also explains why if an Addisonian woman becomes pregnant (which is rarely the case) her condition tends to become more severe and artificial interruption of gestation may become necessary. The rare cases in which an improvement was noted during the late stages of gestation are explained by assuming that the foetal cortex gradually begins to compensate for the insufficiency of the mother's adrenal.

Clinical Course

In typical cases the course of Addison's disease is very characteristic. There is firstly an extraordinary debility and languor usually following upon some infection of the upper respiratory tract, secondly, the full syndrome of chronic Addison's disease and thirdly, decrease in blood volume and foetal circulatory collapse ensure during a crisis.

The leading symptoms and signs of the fully developed syndrome are:

- (1) Gastrointestinal disturbances with loss of appetite, nausea with vomiting (almost a *sine qua non*, in the diagnosis).
- (2) Loss of weight.
- (3) A typical brownish pigmentation of the skin and mucous membranes—(not always present).
- (4) Marked muscular weakness with easy fatigability.
- (5) Arterial hypotension with spells of dizziness.
- (6) Decrease in blood volume—loss of H_2O .
- (7) A great decrease in general resistance to any type of stress.
- (8) The menstrual cycle is sometimes disturbed although amenorrhea is rare and menorrhagias tend to occur only in patients approaching the menopause. The manifestations of Addison's disease are often exacerbated during menstruation.
- (9) Reduced basal metabolism and a fall in body temperature.
- (10) Neurologic disturbances.
- (11) Eventual prostration and death unless therapy instituted.

(B) Hypercorticism: Hyperadrenalism, hyperadrenia.

(1) When combined with pseudo hermaphroditism—adrenogenital syndrome of Cooke—Opert—Gallais, Adrenal virilism.

(2) When accompanied by precocious sexual development in children—Macrogenitosomia pilcox suprarenalis.

(3) When accompanied by glycosuria in women—diabetic or bearded women.

Hypercorticism is a condition in which the hormone production of the adrenal cortex is suf-

ficiently augmented to cause detectable overdosage manifestations. Lesions responsible are cortical adenoma, cortical carcinomas.

Since under certain conditions the excess production of one of the other of the hormones may prevail, it is obvious that hypercortico condition can manifest itself in a variety of clinical forms.

The general incidence of the fully developed adrenogenital syndrome is very low. Mild types of virilism on the other hand, are so common among women that they may even be regarded as being on the borderline of the normal. In most of the mild cases, it is difficult to ascertain the adrenal origin of the manifestations and hence statistical studies are almost impossible.

While the adrenogenital syndrome may develop at any age, the characteristically severe cases are most common among children. This may be due, at least partly, to the greater ease with which pseudo-hermaphroditic changes develop at a time when the sex organs are still incompletely formed. Comparatively mild virilism (esp. hirsutism) on the other hand, is very common among post menopausal women and there are good reasons to believe that this is of adrenal-cortical origin. It is frequently accompanied by hypertension and sometimes by increased urinary 17-KS excretion (Post-menopausal virilism) or post menopausal Cushing's syndrome. Some authors think that after the menopause the diminution of female sex hormone production may be conducive to an increased pituitary adrenotrophic hormone secretion and secondarily to signs of hypercorticism (some of these changes may be due to anomalies of the end-organs).

Heredity also plays an important part in the pathogenesis of the disease.

Clinical Course—It is hardly possible to draw a characteristic picture of typical adrenogenital syndrome. The cardinal changes are pseudo-hermaphroditic traits and since the condition is more common in women, they usually correspond to virilization.

In children, the development of heterosexual features tends to be much more pronounced than in adults. It is usually accompanied by premature sexual and somatic development.

In the adult, in addition to the sexual changes, hypertension, glycosuria and a great tendency to adiposity are very characteristic (Striations and Moonface).

Differential Diagnosis Arrhenoblastoma, ovarian hypernephroma, luteomas and Leydig cell tumors, tumors of the hypothalamus, pineal tumors, Cushing Syndrome.

(C) The General Adaptation Syndrome

A discussion of the adrenals would not be complete without at least a mention of its part in the general-adaptation syndrome.

The general adaptation syndrome is defined as "the sum of all those non-specific systemic reactions of the body which ensue upon long continued exposure to stress (Selye).

It is characterized by a number of morphologic and functional changes. Among the most prominent of these are:

(1) Enlargement of the adrenal cortex with increased corticoid-hormone secretion.

(2) Involution of the thymus and of other lymphatic organs.

(4) Gastro-intestinal ulcers.

(4) Certain metabolic changes and variations in the resistance of the organism.

If an individual is continuously exposed to stress, the resulting general adaptation syndrome evolves in three distinct stages (Figure 2).

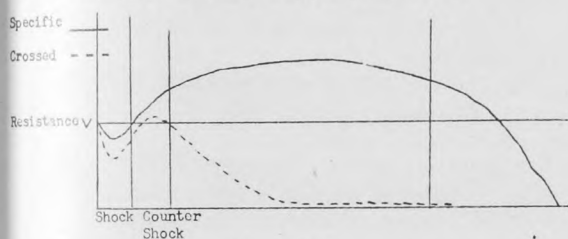


Figure 2

Schematic representation of the changes in specific (full line) and crossed (dotted line) resistance during the three stages of the general-adaptation-dyndrome. (Selye).

(1) **The Alarm Reaction**—"The sum of all non-specific systemic phenomena elicited by sudden exposure to stimuli to which the organism is quantitatively or qualitatively not adapted."

Some of these phenomena are only passive and represent signs of damage or shock, e.g. hypothermia hypotension, hemoconcentration, increased capillary permeability, hypochloremia, depression of the nervous system.

Others are manifestations of active defence against shock, e.g. adrenal-cortical enlargement and increased corticotrophin and corticoid production, hyperchloremia. Normally there are two distinct stages (1) Shock and (2) Counter-shock.

(2) **The Stage of Resistance**—is defined as "the sum of all non-specific systemic reactions elicited by prolonged exposure to stimuli to which the organism has acquired adaptation. It is characterized by an increased resistance, especially to the particular agent to which the body has been exposed, and this is usually accompanied by a marked decrease in resistance to other types of stress. The impression is gained that during the stage of resistance, adaptation to one agent is acquired at the expense of resistance to other agents."

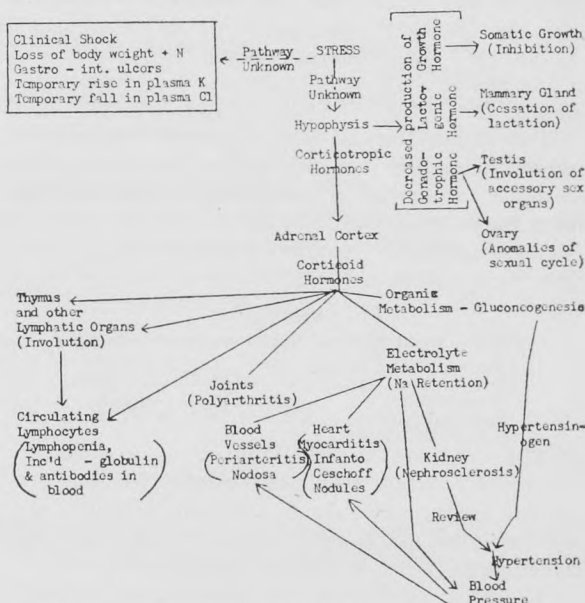
(3) **The Stage of Exhaustion**—represents the "sum of all non-specific systemic reactions which ultimately develop as the result of very prolonged

exposure to stimuli to which adaptation had been developed, but could no longer be maintained.

The Functional (mainly hormonal), interrelations Between the Various Organs Affected by the General-Adaptation Syndrome.

It will be noted that stress initiates the entire chain of reactions. It appears to act upon the organism through two distinct pathways. The signs of damage (clinical shock, etc.) are manifestations of defencelessness. They are aggravated by hypophysectomy or adrenalectomy. Secondly, stress sets into action the hypophyseo-adrenal defense mechanism as shown in the diagram.

Capacity of adjustment to external stimuli is the most characteristic feature of living matter. It is not unexpected, therefore, that some of the most common diseases of man appear to be diseases of the adaptive mechanism. Selye lists the following as "diseases of adaptation"—hypertensive diseases, periarteritis nodosa, nephrosclerosis, nephritis, rheumatic diseases, Waterhouse-Friedrichsen syndrome, eclampsia, accidental thymus involution, appendicitis, tonsillitis. If this concept of the diseases of Adaptation should prove to be correct, we would have to conclude that endocrine derangements play a crucial role in the major, fatal syndromes of internal medicine.



References

1. Textbook of Endocrinology, Hans Selye, 1948.
2. General Endocrinology, C. Donnell Turner, 1948, W. B. Saunders Co.
3. Diseases of the Adrenals, Louis J. Soffer, 1946, Lea and Febiger.
4. Clinical Biochemistry, Cantarow and Trumper, 1948, W. B. Saunders Co.
5. Selye, Hans, The General Adaptation Syndrome and the Diseases of Adaptation, Journal of Clinical Endocrinology, 6:117 (1946).
6. Recent Advances in Endocrinology, A. T. Cameron, 1945, Churchill and Co.

Urology

Retropubic Prostatectomy

A Report

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It is perhaps appropriate that an ex-resident of Mr. Terrence Millin should be the first from Winnipeg to report his experience with Retropubic Prostatectomy.

Material

This survey includes only consecutive operations for the 28 months' period prior to February 1st, 1951. To ensure comparative statistics, an analysis of other methods of prostatic surgery was undertaken on consecutive cases over the same time period. No patient able to walk was denied surgery. The retropubic series represents one's own operations, or those in which one was actively assisting, or demonstrating surgeon. The transurethral series is entirely one's own surgery. The patients were from private practice, St. Boniface Hospital Staff Wards, Deer Lodge Veterans' Urological service and St. Joseph's Hospital Wards. No resection for various cord bladders is included.

TABLE 1
Retropubic Series

Simple	41 cases
Total (Radical for Ca.)	3 cases

One of our original ideas in developing a retropubic technique was to apply its approach to prostatic carcinoma. Three radical prostatectomies have been done. All are alive with no evidence of metastases 18 months post-operatively. All now have normal urinary habits.

TABLE 2

Twenty-Eight Months' Series of Prostatectomies

Transurethral	78%
Retropubic	21%
Suprapubic	1%
Perineal	0

The contents of this table raise a point for discussion. What cases are suitable for the pre-vesical technique? As a guiding principle, any adenomatous gland estimated over 50 gms. was considered. Criteria for this estimate were:

1. Rectal size.
2. Size of prostatic shadow in the intravenous cystogram.
3. Cystoscopic appearance in some cases.

In general the operation was fitted to the patient and not the patient to the operation. The very poor risk case had resection, partial or radical, regardless of size, in an effort to produce a comfortable waterway. Only one case under 37 gms.

Read at the Western Surgical Association, Winnipeg, February, 1951, and the North Dakota State Urological Society, Fargo, September, 1951.

had a retropubic. In this patient a large calculus behind a prostate could not be treated transurethrally. Retropubic prostatectomy was performed and the stone removed from the bladder through the capsular incision in the posterior urethra. Transurethral resection was done in:

1. All other adenomata under 45 gms.
2. All fibrous glands.
3. All calculous prostates.
4. Suspected carcinomata (for diagnostic purposes or therapeutic reasons).

Notes re Technique

Our operative technique is a moderate variation of that described by Lowsley.

1. All skin incisions have been midline—vertical—generous.

2. The key to the operation is hemostasis.

(a) Santorini's plexus must be ligated whether it can be seen or not.

(b) Intracapsular veins are ligated before capsular incision or as soon after as possible.

This hemostasis has not been difficult whether or not the boomerang needle was used.

3. Once the capsule has been incised—transversely—close to the bladder neck—the enucleation is routine—leaving an empty cavity under full vision. Bleeding at this stage has never been troublesome.

4. The bladder neck does not usually bleed unless a wedge is removed from the posterior commissure. A wedge is removed if:

1. The index finger cannot be fully introduced into the bladder through the opened urethra.

2. The bladder neck is thick and heavy with fibrous or muscular tissue.

Small bleeders, usually arterial, are ligated at this point. Wedges were removed in 11/41 cases. Post-prostatectomy fibrosis of the bladder neck had to be resected in 2/41 cases of this survey, whereas 5 patients had to be resected after previous suprapubic operations done elsewhere.

5. Closure:

(a) Foley Alcock catheters were passed into the bladder from the meatus: the bulb was left in the bladder, not in the urethra. Gelfoam or oxycel has not been routinely packed in the prostatic cavity.

(b) Capsule was closed with one layer of sutures—interrupted or continuous. No fistula has resulted.

(c) A suprapubic rubber drain is always used. No case of Osteitis Pubis has occurred.

Post-operative Care

1. Retropubic cases were irrigated routinely just as the resections.

3. Minimal sedation was required.

3. Early ambulation (48 hours or earlier) was the rule. Only one embolic episode occurred—without fatality.

4. Transfusion has not been routine but generally reserved for blood loss over 300 c.c.'s.

5. Intravenous fluids were not pushed.

6. Generally catheters were removed the 7th day and drains the 3rd day.

TABLE 3
Comparative Data

	T.U.R.	Retropubic
Ages	67 years	72.5 years
Weight of tissue	22.5 gms.	65 gms.
Pre-op. Hospital days	8 days	8 days
Post-op. Hospital days	15 days	21 days

TABLE 4
Comparative Data

	T.U.R.	Retropubic
Carcinoma	10 cases	3 cases
Revision	9 cases	2 cases
(On T.U.R.'s or Suprapubics done elsewhere)		
Pre-op. Stricture	10 cases	0 cases

TABLE 5
Post-Operative Data

	T.U.R.	Retropubic
Deaths	3%	4%
Epididymitis	14%	2%
Incontinence	2%	0%

In the early part of this series vasosection was not done routinely and it was felt that vasosection in the latter part of the study sharply reduced this incidence of epididymitis. Four patients in the retropubic series had incontinence varying from 5 days to 6 months. All eventually recovered urinary control. One death in the retropubic series resulted from duodenal ulcer haemorrhage. The other death occurred in a man 93 years of age.

TABLE 6
Late Implications

	T.U.R.	Retropubic
Delayed Haemorrhage	7%	2%
Osteitis Pubis	—	—
T.U.R. revision (this series) ..	1%	4%
Stricture	2%	—

Conclusions

It would be presumptuous to conclude anything from such a small series but I would leave you with some of my impressions.

1. After retropubic prostatectomy these patients do well:

(a) The operation is not shocking and we are extending it to poorer risks.

(b) The nursing problem is easier and less laborious than an open suprapubic prostatectomy.

(c) Normal voiding of clean specimens has occurred as quickly as in any other method.

(d) Mortality rate and hospital stay compare favourably with transurethral resection.

(e) Complications are about the same in each series.

2. Easier operations and successful results follow careful appraisal of the patient and the gland. To attempt simple retropubic removal of small adenomatous, fibrous, calculous, or carcinomatous glands is to court trouble if not disaster. As a rule the larger the adenomatous gland the easier has been its removal—there is more room to work.

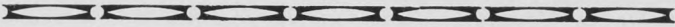
3. The retropubic operation offers an anatomical, surgical approach to full vision and full control of haemorrhage.

4. The retropubic approach opens the door to the bladder for inspection and treatment of such lesions as calculi and papillomata after the prostate is enucleated.

5. The retropubic exposure introduces a new approach to prostatic carcinoma for radical excision and application of the Halstead principle for excision of the lymph gland area.

In conclusion I would say there is a place for both types of prostatectomy mentioned. Each operation has its indication depending on the risk of the patient and the size and nature of the gland.

Clinico-Pathological Conference



Deer Lodge Hospital
January 30, 1952

Cirrhosis of the Liver

A caterpillar tractor operator, unmarried and forty-four years of age, worked in bush camps and classified himself as an infrequent and moderate consumer of alcoholic beverages with the exception of one long strenuous "fling" each spring when he returned to "civilization."

He was admitted to the Peptic Ulcer ward at Deer Lodge Hospital on the first of December, 1950, and stated that he had last felt perfectly well in November, 1948. His main complaint was abdominal bloating, considerable anorexia, belching, and the sensation of abdominal fullness which

would come on one hour p.c. and last for about an hour. Bowel movements continued normally. Without exacerbation or remission this symptom complex continued until May, 1949, when he suffered a bout of hematemesis. The severity of this is not recorded. A barium series done at Fort Francis at this time led to the patient being told that he "possibly had an ulcer." He received the usual sedative and diet peptic ulcer regime.

During the summer of 1949 he felt "pretty fair" had no sensation of bloating, but his weight was down about 15 pounds from his usual stationary level.

He began work again in October, 1949, and evidently experienced no symptoms until the latter part of January, 1950, when he developed gnawing epigastric pain whenever his stomach was empty; relieved by taking food or "Alka-Seltzer."

He stopped work in February because of a non-descript low back pain and did not resume work until October, 1950. During the interval he had lost a further ten pounds of weight. At no time had he noticed jaundice or compatible stool or urine color changes.

He worked until one week prior to his admission to Deer Lodge Hospital and the only new feature was occasional a.m. p.c. vomiting.

On physical examination the abdomen appeared large in proportion to the general body build due to enlargement of the liver which extended to below the level of the umbilicus.

Blood Wt.—Negative.

Urinalysis—Normal report.

R.B.C. 4.5 million; Hgb 84%.

W.B.C. 10,000; B.S.R. 20mm.

Differential: 64% polys; 35% lymphs; 1% monos.

Three specimens of stool negative for occult blood.

Liver profile: T.T. 5 units; T.F. XX; C.F. XXXX; T.A. Neg.

Serum Proteins: Total 4.4 gm%; Albumen 2.0 gm%; Globulin 2.4 gm%.

Gastro-enterologist's opinion: "At this point I favour cirrhosis of the liver on basis of 1. The digestive discomfort three years ago is rather vague. 2. The legs are edematous and there is not the venous distention of vena cava obstruction. 3. The liver involvement is that of huge enlargement without alteration of arrangement of lobes. 4. Liver function damage. 5. He has red hypotenar eminences. 6. If hematemesis of two and a half years ago had been due to neoplastic ulcer I would expect it to have been repeated since then. 7. Large hemorrhoids. 8. I think there is some ascites.

Chest X-ray negative.

A progress note on December 18, 1950, remarks that the patient was miserable with abdominal bloating and was eating very little. His legs were markedly edematous. He required codeine gr. i for sedation. The temperature chart shows a daily evening elevation to 101° sustained at this level for the terminal week.

On December 20, 1950:

Total Proteins: 4.02 gm%.

Prothrombin Time. 40%.

B.U.N.: 56 mg%.

Serum Cholesterol: 90 mg%.

Liver Profile: T.T. 6.5 units; T.F. XXX; C.F. XXX; T.A. Pos.

Flat plate of abdomen: "A large mass occupies the middle and upper right portion of the abdomen. This is probably due to a grossly enlarged liver; otherwise negative.

Barium swallow and series: "Examination of the oesophagus appears negative. There is no evidence of any varicosities visualized. The greater curvature of the stomach is not included in some of the films. On fluoroscopic examination and those views which do include the entire stomach appear negative. Duodenal cap appears normal.

Four hour interval: Stomach is empty; head of meal is in transverse colon.

Twenty-four hour interval. Barium is present in the distal portion of the transverse and descending colon. These sections would appear spastic with suggestion of diverticula. Barium enema might be suggested."

He continued a steady downhill course to death becoming mildly icteric terminally. Died Dec. 22, 1950.

At autopsy, almost the whole upper abdomen was found to be occupied by an enormously enlarged liver, weighing 5040 gms. the surface of which was marked by umbilicated metastatic carcinoma lesions. The primary site was an adenocarcinoma of the greater curvature of the stomach about three inches below the cardiac sphincter. This was of the excavating type, the crater measuring approximately two cms in diameter.

Diagnosis: Adenocarcinoma of greater curvature of stomach (excavating type) with metastases to peritoneum, regional lymph nodes and liver.

(Microscopic examination of the tumor showed it to be of the infiltrating scirrhus variety although some areas showed attempts at acinous formation).

Infiltrative Disease of the Liver

Hepatic infiltrations resulting in hepatomegaly might be divided into intrinsic, extrinsic and neoplastic types.

In the intrinsic group, the infiltrating substances are normal components of hepatic cell metabolism which accumulate within the liver cells following a disturbance in functional pattern. The pathology is in the liver cells themselves.

In most of the disorders belonging to the extrinsic group, hepatic involvement usually occurs first in the reticulo-endothelial components before invasion of the parenchyma.

Then, of course, there are the primary and secondary tumor infiltrations—perhaps the commonest cause of infiltrative hepatomegaly. Essentially, these might be considered as a "foreign cell "displaced person" type of infiltration.

Among the intrinsic hepatic disorders will be mentioned fatty infiltration and glycogen storage disease (von Gierke's disease).

The commonest metabolic disorder of the liver is fatty infiltration. This may occur rapidly after absorption of certain poisons, or in precomatose diabetic patients; or, relatively rapidly after intensive indulgence in alcohol. The majority of cases, however, are slow processes associated with chronic disease and malnutrition.

Distinctions between fatty degeneration and fatty infiltration in the liver are unreliable. It was originally thought that fatty infiltration of the liver resulted from transport of fat to the liver from elsewhere in the body due to excess of food fat, whereas fatty degeneration was the unmasking of fat or a change in chemical form of substances already present within the cell due to cellular injury. It was believed that morphologic distinction between these forms could be made, in the former case the fat appearing in the liver cells as large, and often single, vacuoles, and in the latter, the fat droplets being tiny and numerous. It is now known that the premises and morphologic basis of this distinction are unreliable or fallacious, and the term "fatty infiltration" and "fatty degeneration" are tending to be discarded in the case of the liver in favor of the more non-committal terms of "fatty change."

The fatty liver is uniformly enlarged, but of light weight. It is smooth and pale, and the cut surface bulges slightly and is yellowish and greasy with the usual markings tending to be obscured.

In glycogen storage disease the liver is greatly enlarged. The parenchymal cells appear swollen and clear, and might be mistaken for cells undergoing hydropic degeneration. In contrast to the appearance of cells in normal liver, the glycogen is readily demonstrable in von Gierke's disease; it does not leave the cells and takes a carmine stain. The disease may be dismissed briefly by noting that the abnormal glycogen storage appears consequently upon failure of the enzyme system essential for the mobilization of glycogen.

The familial de Toni-Fanconi syndrome in which there is an association of bone, kidney and liver disease, is characterized by the excretion of large amounts of serine and the resulting deficiency may interfere with the production of cystine from methionine (for which abundant quantities of serine are needed); and, with the methionine-sparing action of cystine.

The extrinsic infiltrations include the xanthomatoses, amyloid disease, and the various examples discussed below.

Amyloidosis is a disease of unknown etiology characterized by the deposition of a peculiar glycoprotein, amyloid, in various tissues of the body, including the liver. It is usually secondary to long-continued suppuration, tuberculosis or rheumatoid arthritis, but in rare cases may be a primary disease. In hepatic amyloidosis, the abnormal glycoprotein is found deposited in the

blood vessel walls. The liver is enlarged, firm and rubbery. The cut section is glossy and translucent. Diffuse fibrosis occurs over a period of time as the disease progresses. The amyloid substance stains mahogany-brown with iodine.

Abnormal invasion of the liver by cholesterol characterizes several types of xanthomatous disorders. The pathology of the group varies but the fundamental hepatic lesion is a pericholangiolitis spreading to become xanthomatous biliary cirrhosis. The condition is said to be almost entirely confined to women of about 40 years of age.

From 3 to 10% of cirrhotic patients, particularly those with diabetes, will have a primary pigment disorder with excessive hemosiderin deposits in the liver cells. This hemosiderin pigment in hemochromatosis leads the hepatic cells and is demonstrable with Prussian-blue satin.

In Gaucher's disease, the liver is moderately enlarged, is smooth and glistening and the cut surface appears brownish pink. Clumps of large clear cells are characteristic, with a streaked appearance produced by a network of fine fibrils running parallel to the long axis of the cell. The metabolic hepatomegaly is due to the accumulation of cerebrosides (kerasin, lecithin) in the Kupffer cells. Hepatic fibrosis develops slowly in Gaucher's disease and rarely becomes pronounced enough to cause symptoms.

Niemann-Pick disease is associated with deposits of sphingomyelin, the liver being very large and sometimes resembling the yellow, fatty liver of phosphorus poisoning. The huge cells are comparable to those of Gaucher's disease but appear "foamy" in sections.

The reticuloses, that is, the leukemias, lymphadenoma, sarcoidosis, myeloid metaplasia, and so on form a great group of infiltrative abnormal cell deposits in the liver. Diffuse fibrosis does not develop.

All of these infiltrative diseases of the liver are noteworthy chiefly because they manifest their presence by symptomless hepatomegaly. There seldom will be interference with hepatic function until the disorder has progressed far into a post-infiltrative stage of fibrosis. Upset in liver function will arise from impaired circulation rather than from any direct harmful action of the infiltration substance.

Primary tumors of the liver, either benign or malignant, are relatively uncommon, but metastatic neoplasia are exceedingly common.

Why?

Stephen Paget (1889) was one of the first to comment on the discrepancies in the relative frequencies of metastatic growth in various organs. He considered the situation resulted from tumor emboli, which he compared to "seeds," falling in "soils" of different degrees of fertility.

In 1934 Willis discussed in some detail the reasons for rejecting Ewing's opinion that "the mechanism of the circulation will doubtless explain most of these peculiarities."

Some tumor emboli arrested in the lungs, for example, fail to grow there, but remain infertile within the occluded arterioles and undergo degeneration and fibrous organization. In the liver, on the contrary, abortive tumor emboli are rarely or never encountered. Confirmation of the idea that hepatic tissue is a fertile soil for tumor growth is brought out by the fact that metastases of a particular tumor in different sites show great differences of mitosis; the mitotic activity of hepatic metastases usually exceeds that of the primary growth and of secondary growths elsewhere, sometimes five-fold or ten-fold.

For example, metastatic melanotic tumors of the liver are more often secondary to primary growth in the uveal tract than in the skin, and the primary focus may be unusually small while the hepatic metastases may be huge.

The multiplicity of tumor nodules metastatic to the liver is often due to intrahepatic spread by invasion of the portal veins even though the original entry into the liver was by tumor emboli in the hepatic arteries.

Satterlee has compounded tables to indicate the frequency of metastatic tumors in the liver, and probabilities regarding the original site. According to his figures, metastasis to the liver occurs in 36% of all cancers; in 50% of cancers of portal areas, in 48% of breast cancers, and in 44% of gastric cancers.

In a given case of cancer of the liver in a man, the probabilities are 26% that it is from the stomach, 20% from the intestine, 14% from other digestive organs, and 14% from the genito-urinary tract.

In a given cancer of the liver in a woman, the probabilities are 20% that it is from the breast, 18% from the intestine, 16% from the uterus, 13% from other digestive organs, 12% from stomach, 7% from other genito-urinary organs.

References

- Anderson, W. A. D.: Pathology, C. V. Mosby Co., St. Louis, 1948.
Satterlee, R. C.: U.S. Navy M. Bull., 40: 133, 1942 (Quoted in Anderson).
Ewing, J.: Neoplastic Disease, W. B. Saunders Co., 1940.
Willis, R. A.: Pathology of Tumours, Butterworth & Co., London, 1948.
Lichtman, S. S.: Diseases of the Liver, Gall Bladder and Bile Ducts, Lea & Febiger, Phil., 1949.

Alcohol and Cirrhosis of the Liver

How often one hears and reads these days the bald statement, "of course these cases get cirrhosis not because they drink too much over a long period, but because they don't eat when they drink."

But what are the facts behind the growing tendency in recent years to defy clinical experience

and dispute the status of alcohol in the development of cirrhosis?

It is generally accepted that, experimentally, working with the usual laboratory animals, alcohol alone will not produce cirrhosis of the liver.

However, when men and women consume alcohol over a long time, and usually in combination with a deficient diet, cirrhosis may result.

The case against alcohol rests on statistical analysis of the incidence of cirrhosis among alcoholic and non-alcoholics and on the contention that numerous individuals consume tremendous amounts of alcohol without the development of chronic liver disease.

Yet since portal cirrhosis is not believed to be a specific disease, how can one disqualify alcohol as an etiologic factor in at least some of the cases?

It is well known that the incidence of cirrhosis is greater in certain occupations such as bartenders; the assumption here is that in these trades alcohol consumption is higher and more prolonged.

Additional evidence, albeit circumstantial, favoring the alcoholic factor in the etiology of cirrhosis, stems from the known fact that in many large series the appearance of cirrhosis in alcoholics antedates by approximately ten years the onset of the disorder in comparable non-alcoholic control cases of cirrhosis. Thus Rolleston and Fentol tabulated 114 cases of cirrhosis and found that the average age of alcoholic females with cirrhosis was 42.8 years as opposed to 51.5 years in non-alcoholic females.

Furthermore since about 1933 and with increasing frequency since, the incidence of cirrhosis of the liver has risen sharply, especially in females, and the inference is that increased alcoholic consumption accounts for this.

Judging from autopsy material Jolliffe and Jellinek in 1941 recorded an incidence of 1.2% of liver cirrhosis in an abstinent temperate population while among inebriates the incidence climbs to 8%, a relative incidence 6.7 times as frequent.

The incidence of cirrhosis in urban areas where alcoholism is more prevalent has always been higher than in rural districts.

The type of alcohol consumed and possible contaminants have been investigated as possible factors in the etiology of portal cirrhosis and certain strong claims are made but the evidence is anything but irrefutable.

For example copper, derived from copper distilling utensils has been incriminated, particularly by Mallory and Gerlach. Mallory also suggested that minute amounts of phosphorous alloyed with iron which may be present as contaminating traces in liquors may be an etiological factor. Gerlach found that the copper content of the liver of patients with cirrhosis was elevated and suggested that this mineral in conjunction with alcohol might be significant.

Many other investigators discredit any role copper may play in the etiology of cirrhosis.

The specific problem of the wide range of alcoholic beverages and the varying composition of each, has been gone into without any definitely incriminating results as far as possible contaminant toxicity is concerned.

Liquor aged in charred casks contains visible quantities of brownish substances dissolved from the wood and the possible importance of tar-like products or substances of the benzene series has not been verified. Nicotine, manganese, phenylhydrazine, and furfural in wine have all been suspected but nothing definite has accrued from their being investigated as possible factors in the production of hepatic cirrhosis.

Studies of disturbances of liver function in patients with acute alcoholism of two or more weeks has demonstrated that only about 5% show hepatic damage as judged by the results of the bromsulphthalein, serum protein, albumin-globulin ratio, total and esterified cholesterol tests. The best test in Cates series seemed to be the bromsulphthalein excretion estimation, the earliest discernible change in the livers of such patients apparently being a decrease in the physiological efficiency of the reticulo-endothelial cells which remove the dye from the circulation.

Fatty liver is well known as a pre-cirrhotic state and it is recalled that alcohol itself interferes with carbohydrate metabolism and fat oxidation because of its action as a cell and tissue toxin. Combined with this, the almost invariably associated abnormal diet of inebriates, particularly lack of glucose intake, may delay or prevent oxidation of alcohol, producing a prolonged and increased concentration in the tissues.

In alcoholic intoxication, the respiratory quotient of the body drops to low levels and the liver may accumulate unoxidizable fat. The fat storage results in complete glycogen depletion rendering the organ more susceptible to toxic agents and leading to cellular anoxia and necrosis. The proliferation of fibrous tissue may occur partly as a direct result of relative anoxia or partly as a reparative process following cellular necrosis.

The habitual and inordinate consumption of alcohol in any form likely should be regarded as a significant contributory factor in the production of cirrhosis. Cirrhosis has not been reported in experiments with alcohol in animals, other than rabbits (which develop cirrhosis too readily with too many agents to be very suitable for com-

parison). In reviewing the literature, however, one sees that a good standard of research has not blessed this subject. As Moon states, "Some authors have shown a non-critical attitude toward their results, and a few have appeared in the role of prosecuting attorney rather than in that of unprejudiced judge."

Combination of alcohol with other agents has in animals greatly increased their toxic effects on the liver. Fischer's experiments with alcohol and phosphorus, Scagliosi's results with alcohol and bacteria, Wallace's results with alcohol plus chloroform, and the results of Lamson, Wing, Mann and others with alcohol plus carbon tetrachloride are instances of the contributory effects of alcohol.

The majority of substances, as cited above, however, have no connection with the development of human cirrhosis. They serve only to complete our understanding of the fundamental histiogenesis.

The present day concept likely should be that alcohol is not the essential cause of cirrhosis but by virtue of the property of accentuating the effects of injurious agents on the human liver, it should be considered an important contributory factor.

References

- Boles, R. S., Crew, R. S., and Dunbar, Wm.: "Alcoholic Cirrhosis," *J.A.M.A.*, 134: 670, June, 1947.
- Howard, R., and Watson, C. J.: Antecedent Jaundice in Cirrhosis of the Liver, *Arch. Int. Med.*, 80: 1, July, 1947.
- Lichtman, S. S.: Diseases of the Liver, Gall Bladder and Bile Ducts, Lea & Febiger, Phil., 1949.
- Connor, C. L.: The Etiology and Pathogenesis of Alcoholic Cirrhosis of the Liver, *J.A.M.A.*, 112: 387, Feb. 4, 1939.
- Cates, H. B.: Acute Hepatitis of Alcoholism: A Clinical and Laboratory Study, *Ann. Int. Med.*, 15: 244, August, 1941.
- Cates, H. B.: Relation of Liver Function to Cirrhosis of Liver and to Alcoholism, *Arch. Int. Med.*, 67: 383, Feb., 1941.
- Wayburn, E., and Guerard, C.: Relation Between Multiple Peripheral Neuropathy and Cirrhosis of the Liver, *Arch. Int. Med.*, 66: 161, July, 1940.
- Moon, V. H.: Experimental Cirrhosis in Relation to Human Cirrhosis, *Arch. Path.*, 18: 331, Sept., 1934.



The Proud Man

The proud man is commonly too well contented with himself to think that his character requires any amendment. The man who feels himself all-perfect naturally enough despises all further improvement. His self-sufficiency and absurd conceit of his own superiority commonly attend him from his youth to his most advanced age; and he dies, as Hamlet says, with all his sins upon his head, unanointed, unanealed.—Adam Smith.

Medico-Legal

The Medical Witness

Alexander Gibson, F.R.C.S. (Eng.)

I am deeply conscious of the honour of being the second speaker on the programme of the Manitoba Medico-Legal Association. At the same time I cannot but feel some trepidation at treading so closely on the heels of Chief Justice Williams, whose brilliant and eloquent inaugural lecture we had the privilege of hearing a few weeks ago. From his serene elevation on the Bench, he can look over the arena in which the gladiators contend. It is as one of the dusty combatants that I venture to address you tonight. The medical witness is not one of the stars in the drama of the Courts; he plays one of the supporting roles; a role, however, calling for careful preparation, thoughtful consideration, and temperate judgment.

General Considerations

It is probable that a doctor rarely enjoys appearing as a witness in court. There are several reasons for this. The experience is a reminder of the viva voce tests of which he ran the gauntlet during his years of pupillage, and these were rarely occasions for rejoicing. Not seldom, indeed, they were linked with sombre tidings. Again, every doctor worth his salt is an individualist, accustomed to accept responsibility. He intimates his findings, and prescribes the future conduct of his patient with only occasional argument or contradiction, and, quite unreasonably but humanly enough, he is apt to resent a challenge to his pronouncements. Put this into legal phraseology and it means that every doctor acts as judge and jury in every case that comes under his care. As jury he determines the particular transgression of the laws of health of which his patient has, consciously or unconsciously been guilty, and he prescribes the penalty, the nauseous potion or the surgical ordeal by which the offender may expiate his misdemeanour and rejoin the ranks of the hygienically sinless.

The specialty of medicine is not an exact science like mathematics or physics. It is based on observed facts and established physiological and pathological laws, but these have to be interpreted in each several instance. Inferences have to be drawn, and every conclusion arrived at is an expression of opinion not an ineluctable consequence. Further, presuming that the inferences drawn and the opinion arrived at are correct, there remains the question of procedure. Which is the right one to follow? Here again opinions are manifold. That is not necessarily a disadvantage,

for the same objective may be reached by different paths. Each man, however, is prone to think his own way the best and all others less worthy of acceptance.

Nolens, volens, every doctor is likely to appear in court as a witness at some period of his career. It is desirable that he should have some guiding principles; these are few and simple:

1. He must have a clear conception of what constitutes "Evidence."
2. He must observe as many facts as possible, and base his conclusions on these facts.
3. He must offer no opinions which he cannot support by observed facts, or by accepted theory.
4. He must always be ready to admit, "I do not know."

The Medical Report

I think the majority of doctors feel that the most exacting phase of medical testimony is the battery of cross-examination they may have to undergo at the hands of the opposing counsel. With this opinion I cannot agree. The key to the situation is the Medical Report. If this is accurate in its recording of facts; logical, objective, and moderate in its conclusions, the witness will find his position unassailable. On the other hand, if he mingles the patient's story with his own observations, or in his summing-up permits himself to be influenced by sympathy for or hostility towards the patient, the skilful cross-examiner will speedily unveil the truth, to the discomfiture and, at times, humiliation of the witness.

The experienced medical reporter knows how to draw up such a report. The inexperienced doctor may bungle the task. I would suggest that the young practitioner, cited to appear in court, perhaps for the first time, should set down in writing the essentials of his testimony whether he has been asked for a written report or not. This exercise will clarify his thoughts; he may detect weaknesses or inconsistencies in the position he has taken up, and he may discover that it is expedient to refresh his mind about technical matters regarding which his knowledge may be sketchy, or his recollection cloudy. He will learn to separate what he has observed for himself from the things that have been told to him by others, and he will cast about to anticipate the line of attack that a cross-examiner may take. In all of this his wisest mentor is not another doctor but an experienced and understanding counsel.

The medical report consists of three parts:

1. The patient's story.
2. The examiner's findings.
3. The comment.

The Patient's Story

This should be listened to with unwearying patience. Let him tell it himself, however prolix he—or she—may be. It may be necessary to ask questions; if so, such questions should always be direct; leading questions are inadmissible. Much of the history given will be irrelevant but listen to it all and write most of it down. As you write it down, read your notes aloud so that the patient can hear, and stop every few minutes to say, "Is that correct?" If an accident has occurred, try to get as many details as possible. This may have a bearing on whether concussion of the brain has occurred; it frequently has the effect of shedding light on the credibility of the patient. One's aim should be to form as clear a mental picture of the episode as possible. In a recent case, an elderly lady claimed to have been injured by catching the heel of her shoe on a loose strip of brass attached to the front of the second step from the bottom of a flight of stairs. According to her story she was thrown backwards injuring her spine and was then projected violently forward to the landing at the bottom of the flight of stairs, thus injuring her arms and face. I was unable to form a satisfactory mental picture of the occurrence, and asked her how it happened that she was first thrown backward and then immediately forwards. She looked at me almost coquettishly and remarked, "Ah, that's the sixty-four dollar question."

Lay special stress upon the complaints the patient still has and find out whether they are unchanged, improving, or getting worse. There are only three things of which a patient complains:

(a) Pain.

(b) Deformity, using the term in its widest sense.

(c) Disability. He cannot now do things which he could do before his accident.

Enquire in detail about each of these, and when the whole history has been taken, never omit to ask, "Now is there anything else that troubles you, of which you have not told me?"

The Physical Examination

Complete physical examination of a patient would take hours or days. This is not expected of the examiner. A doctor who is reasonably competent will select the outstanding features of the case and will concentrate on these. Indeed a complete examination would only lead to confusion; it is the duty of the examiner to select what is relevant and to omit the non-essentials. Make the examination of the relevant features as thorough, precise and detailed as possible. If shortening of a limb is present, measure the amount; if there is wasting, note the circumference of the two limbs at corresponding levels. Every doctor should carry a tape-measure. Never omit examination of the Central Nervous System. A patient seen

recently, who complained only of pain in the back, turned out to be an early case of Multiple Sclerosis. Always carry a safety-pin. Apart from its plebeian virtues as a potential friend in need, it enables you to mark out areas corresponding to sharp and blunt stimuli which may unmask a purely subjective psychic loss or a hysterical paralysis. Needless to say never hesitate to have radiographic examination. That introduces you to a realm of surprises.

Having obtained the history and made the physical examination, go through these carefully and write down a consecutive narrative including the patient's complaints in full. This process enables you to sift the wheat from the chaff. Your physical examination should have been systematic and should need no re-arrangement. Next comes the most important part of the report from the standpoint of your appearance as a witness.

The Comment

The physical findings and the history are collated and where possible correlated so that, if you can, you give an explanation of all of the patient's complaints. These should be evaluated, especially in relation to his accident; a prognosis is given as to the time necessary for recovery and the prospect of complete recovery. It is obligatory to record and estimate every permanent disability and deformity, and to bring to notice those that are likely to develop such as osteo-arthritic changes in a damaged hip-joint, even though that change may not have appeared at the time of your examination.

It is thus clear that a medical report is a strictly impartial document. The lawyer who has employed you may not find your report to his taste. I once said to an insurance adjuster, "Well, I don't suppose you liked that report I sent you." He replied, "I'd rather find it out now than in court." Remember, too, that the counsel who has employed you has a right to feel that you have let him down if you have omitted to bring forward unfavourable facts which the opposing counsel may force you to admit.

Psychological Considerations

There is a realm of enquiry regarding which I am not certain in my own mind. More and more, we doctors are realizing that the patient is an individual with hopes and fears, ambitions, resentments, and a variety of other emotions which can affect profoundly his outlook on life and even his physical well-being. The influence of these emotional factors depends partly on his physical constitution, partly on his mental make-up, and partly on his education and training. It is exceedingly difficult if not impossible to weigh these intangibles in the balance. In the words of Robert Burns,

"What's done we partly may compute,
We know not what's resisted."

Fear of the economic future may be well-nigh overmastering to a man whose education has gone no further than grade IV, whose sole métier is that of a labourer. On the other hand there are individuals who have made the discovery that it is the creaking wheel that gets the grease. Such persons, whether they obtain the desired lubrication or not, usually do their best to qualify for it. As doctors we find out a good deal about the economic position and mental outlook of our patients. Should that information be embodied in a report or not? Up to the present I have not done so but have noted it as a help in estimating the validity of the patient's complaints of pain, particularly if, as in a recent case, the physical signs steadily approximate the normal while the subjective tale of suffering shows no diminution.

It may be, too, that I am trespassing on the domain that the psychiatrists have pre-empted as their own, and yet there are some elementary psychological considerations which they are apt to obscure in a welter of polyglot verbiage and which are nevertheless so simple that no medical man dare ignore them if he is to understand his patient. I should be glad to know what is the attitude of the law to considerations such as these. Medical practitioners, at least, dare not treat their patients as mere physical mechanisms. Many of these unfortunates are keyed up to a state of suspense that puts a brake on their recovery to normal. That is why the opinion is so often expressed that most or all of the patient's complaints will vanish when the lawsuit is settled and not until then. If the outcome of the litigation is favourable, the swiftness of the recovery may be quite impressive.

Relation to Judge and Jury

The medical witness must keep in mind at all times the sole reason for his being in court at all. It is to enlighten the judge and the jury in regard to the facts of the case. His first duty therefore is to make use of the simplest possible language to express his thoughts. We all have a technical vocabulary that we use as a means of communication among ourselves. The judge may lack this equipment and the jury certainly will. The witness must therefore see to it that judge and jury both hear clearly what he has to say; he must enunciate distinctly. Further, he must use terms such as a layman may understand. "The thigh bone" or the "arm bone" is better than "Femur" or "Humerus"; "wrist" is better than "Carpus" and "spine" than "vertebral column." This choice of words is apt to go against the grain, for there is a loss of precision. Such loss, however, is preferable to a state of things where, though precision may have its place in your mind, the judge

or jury may be in a condition of hopeless confusion. It is important to recollect that one is not presenting a scientific protocol, but trying to convey the truth to someone else who is desperately anxious to learn the truth. Sometimes the judge may call for amplification of some statement you have made. This interruption should be welcomed, and even to a learned judge the simplest possible phrases should be used.

There is one other point in your relation to the judge. He is present as the umpire to see fair play. If you feel you are being treated unfairly the judge will promptly come to your rescue. This is an extremely rare occurrence, but it has happened.

Relation to Your Own Counsel

In this part of your testimony, you float with the stream. Sometimes your report will be the basis of a series of questions, but more often you are invited to tell your own story. For this you may refer to your notes. If anything your counsel thinks important or deserving of special emphasis has been omitted, he may ask one or two supplementary questions. If he is wise he will have asked them at a private consultation beforehand. He will probably lay stress on the conclusions you have reached, and the train of thought by which you reached them. He will then turn you over to his forensic opponent with the succinct remark "Your witness."

Relation to Cross-Examining Counsel

Your evidence may carry conviction to such a degree that the cross-examining counsel asks no questions at all. Very often this shows sound judgment. As a rule, however, he may attempt several things.

1. He may try to discredit the value of your testimony as an expert. You may have examined thousands of X-rays but that does not qualify you as a specialist on X-ray work. Your opinion may differ from that of the writer of a text-book. All text-books are out of date by the time that they are published, but there is an aura of authority surrounding the writer of a manual of instruction. Never hesitate to differ if you can give good reasons for your opinions. If you have anticipated the question, you may even be prepared with another text-book to support your view.

2. He may present a series of opinions differing from your own, generally with the qualification, "Might not this be so?" This is a difficult situation for you if you say, "Yes, it might be," the immediate corollary is, "Then, you're not sure, you may be quite mistaken." Sometimes you will be faced with the general statement that it is only human to make mistakes, and, after all, you are not superhuman. If you get the chance, your one reply is that you have considered the various possibilities, rejected them, and chosen that which

you have put forward. To do this successfully means that you must be prepared to give reasons for your belief, and that implies careful preparation.

3. He may seize on one part of your evidence and emphasize it while excluding other parts which modify the whole, and thus tend to misrepresent your real opinion. When he finds himself in this position the medical witness is apt to feel himself aggrieved. He has sworn to tell the truth, the whole truth and nothing but the truth, and he feels that he has been manoeuvred into giving his endorsement to a half-truth. He cannot always expand his statement; his duty is to answer questions. There are two consoling thoughts:

(a) His own counsel will probably note the perversion, and, recalling him after the cross-examination, give him the opportunity to make his real opinion clear.

(b) The judge is as conscious of the half-truth as the witness is, he is not likely to be deceived. You do not have to struggle to save him from the wiles of a specious pleader.

4. Some cross-examiners habitually bring up the subject of pain alleging that you have no means of estimating it or even telling whether it actually exists. They will enter into semi-metaphysical speculations on the seat of pain, its mechanism, and other recondite aspects of the problem. Never try to follow them. From your own experience and that of others you have a pretty fair idea of whether a pain is severe, moderate or trifling, and that is about as far as you dare to go.

The cross-examining counsel must never be looked on by the doctor as an opponent with whom he matches wits. You are not permitted to argue with him; you can only answer his questions. Always do this as definitely as you can. Shun the temptation of hypothetical possibilities. You have formed your opinion; stick to it and give reasons for the faith that is in you. Never get flustered or angry. If the cross-examiner attempts to throw you off balance, that is his method of doing his best for his client.

Relation to Other Doctors

When one is giving evidence in regard to a case one has treated personally, the position is relatively simple. The facts of the case are presented along with the considerations that guided the procedure adopted. Where the case under dispute has been cared for by another practitioner, the way is not always so easy.

One generally rings up the doctor in charge and says, "I have been asked to examine a patient of yours Mr. So-and-So; is that all right with you?" The answer is invariably "Yes." The next remark is, "Is there anything you'd care to tell

me about him?" One generally gets his point of view. That very often avoids a difference of opinion that, aired in open court, is in the main unfortunate. Hesitate long, very long, before criticising another doctor's work. Remember that he has, in practically every case, done his very best, and that he can usually support his procedure by authorities which, though they may differ with you, are nevertheless accepted standards. Sometimes in court you will be told, "This morning, Dr. X. Y. said such and such a thing; do you think he is wrong?" In reply to this, one can only accept responsibility for one's own opinion and beg to be excused from commenting on those of others. This demurrer will generally be accepted.

Malpractice Suits

It is not my intention to discuss this matter at length. I fully expect that it will be the subject of a whole evening's programme. There is, however, one aspect of the matter which all should know. No suit for malpractice can proceed unless a medical man will testify for the plaintiff against the doctor who is being sued. It is a sobering thought that the majority of malpractice suits are brought because of criticism by a doctor of the work of one of his colleagues. This should emphasize once again the need for reticence in passing judgment on another practitioner, even in, perhaps especially in the privacy of our own homes. With the establishment of large clinics, and the development of medical practice along the lines of business organizations, the intimate personal touch tends to be submerged. In mediaeval days it was a frequent practice in Scotland to carve mottoes above the doorways of houses. I commend to your notice one which still stands in the City of Dunfermline:

"Sen vord is thrall, and thoct is fre,
Keip veill thy tonge, I coinsel the."

In the not too distant past there was a subject known as Formal Logic. One of the feats accomplished by its aid was to reduce every statement to the form of a Syllogism consisting of a major premise, a minor premise and a conclusion. Transgression of the rules of the syllogism inevitably led to Fallacies of which there were many. Formal Logic has, I believe, vanished from the curriculum; syllogisms are out of fashion, but fallacies are as popular as ever. Of these fallacies, perhaps the most widely patronized is that known as

"Post hoc ergo propter hoc."

Plaintiffs in actions for damages are peculiarly susceptible to it, and counsel for the plaintiff is now and then not guiltless. To distinguish the real from the seeming, to unfold in proper sequence the tale of physical happenings, and to place them in correct relationship so as to assist the judge in arriving at a verdict as nearly as possible in accord with the actual facts, this is the duty and the privilege of the medical witness.

In Lighter Vein

Submitted by Dr. E. S. Moorhead

"Told By The House Surgeon"

"I'm afraid he's going to keep the whole ward awake," says the nurse in her soft Irish brogue. The accident ward of a Dublin hospital on a Saturday night is not the place for a light sleeper. The empty beds keep filling up as the night wears on. Casualties are brought in drunk and disorderly, but with some injury to justify admission. The police are adepts at handling d and d's, but they are always fearful of what might happen to an injured man in a police cell.

Pat Hogan was due for a long stay in the hospital. It had begun as a pleasant evening, rambling from pub to pub, meeting new friends, and drinking a couple of rounds of porter wherever he went, till closing time came. What happened between that hour and the time when the police brought him into hospital with a broken leg, neither Pat nor anybody else knew.

The house surgeon on accident duty was a good tempered soul who had spent Saturday afternoon asleep to make up for what he wouldn't get later.

"Where did you pick him up sergeant?"

"Outside O'Leary's pub, sorr. He was lyin' in the gutter, singing at the top of his voice."

"Well just wait a minute. There's a man in the casualty room needs a couple of stitches in his cheek. You might as well be taking him back to the station with you. We don't want him here, and he's too drunk to get home."

It was not easy to get the splints adjusted to Pat's leg. Alcohol had numbed the pain, and he did not mind which leg he kicked with.

Finally the job was finished. The doctor administered a powerful sedative, and went off to his own bed, hoping that the rest of the night would be peaceful.

Somebody pounding on the door.

"Who's that?"

"If ye plaze, docthor, that new fella with the leg is raising hell, and the nurse says will ye plaze to come quick."

The nurse had been right.

Pat was singing at the top of his voice and the ward was in an uproar.

What the doctor did is a secret known only to house-surgeons, but in a few minutes peace reigned, and he went back to his bed.

Next morning on his regular rounds he came to Pat, and after a cheerful "Good-morning." "What the devil were you making all the noise for last night?"

"Well ye see, yer honour, sir, I must have had dhrink taken, and when I came to, I felt quare like. I looked round and seen them young girls in white

moving about, and sez I to meself, this must be heaven, and them's God's holy angels. And shure yer honour, doesn't everybody know that there's singing in heaven and moreover, yer honour, I wanted to sing. So I sang the songs that I used to hear in church, and then yer honour came, and begob I knew I wasn't in heaven."

An Irishman can fit himself into most surroundings. When Pat found that he was likely to be more than two months in the hospital, and that porter was forbidden, he decided to make the best of a bad job.

"But what?" ses he, "will I do without a sup of porther? Shure it's mate and dhrink both, and won't the skin be hanging on me bones before I lave ye?"

Whether it was his genial good nature, or his ugly face, it is hard to say, but Hogan became a great favourite. He was about sixty. His face was that of a gargoyle, and the rest of him deformed like a gnarled oak tree. Every joint in his body was knobby or stiff, caused as he said by digging turf out of a peat bog, often standing up to his waist in water, and "divil a drop of the crathur to keep the could out of me bones." His iron-gray hair was like a ragged thatch, and till the day he came into hospital, probably never know a comb. The sight of one eye had been lost through an accident.

Children would run away in fright when they saw the white eyeball looking twice its normal size, because the scarred lids would never meet. His nose had been broken in some fight. He had two tusks, for you couldn't call them teeth, one in the upper and the other in the lower jaw. Pat always loved the joke when he told visitors or passers-by who had stopped for a chat. "Thank God they meet."

To a Dublin workman, two months without porter or whiskey is a terrible punishment. A broken leg could be made comfortable. "But wasn't his stomach shouting all the time for a taste of something warm, and wasn't that the hospital that he always had a good word for, and shure the Guinness was chape enough anyway."

The Irish discovered a long time ago that they could derive a great kick out of drinking ether. It used to be very cheap and easy to get. For tuppence, a body could get drunk with it. Better still he was sober in an hour, and what was there to prevent him getting drunk again?

There was a young English house-surgeon who was interested in a patient in the next bed. Pat had a very poor opinion of him because he didn't understand the Irish talk. He never smiled and he worked very hard. "What kind of a life was

that for the young gentleman?" One day the doctor was taking some drops of blood for testing, and suddenly Pat had a lift of the heart. He smelt ether, and looking over saw the doctor putting a bottle back on the tray.

When the nurse, a little later, reported to the sister that Hogan was behaving queerly, that austere lady descended on him. Her nose soon told her the reason for the laughing and singing. Pat was drunk, drunk and disorderly again, and he only ten days in the hospital.

A hospital sister can deal with most situations, and here was one to her liking. The nurse hastily put a screen round the bed. A few minutes later the awful sounds of the forcible administration of a stomach tube were heard. Pat still tells with a gleam in his eye how he bit the young English doctor's finger, which slipped between the two teeth that met. He says that they never gave him another chance to taste the fighting stuff.

Though Pat had a poor opinion of the young English doctor, he had no idea of overstepping the line which time and the feudal system had drawn between them. The doctor was a "gentleman," and while he could cut off a leg, or cure a pneumonia without losing caste, there were certain tasks that he could not do. If he didn't know them Pat did.

Early one morning the doctor came into the ward, while washing and bed-making were being done. He had just finished dressing an accident. It was too early for breakfast, and not worth while going back to bed. Pat, who had been in hospital for several weeks was, by this time, allowed to slither from his bed to a chair close by. The doctor, an earnest worker with lofty ideals, had in a moment of mistaken enthusiasm criticised the bed-making of one of the nurses. "Will ye be after showing me how ye do it yerself," said she, with a twinkle in her eye. It was at that moment that he decided that bed-making must be added to his accomplishments. He was going to take a lesson, and hoped that the pretty nurse would not hear about it.

Pat objected on principle to his bed being used for teaching purposes. "How could I lie in it with me broken leg after that young lad had been twisting it upside down," said he afterwards to his neighbour? "And didn't he find the plug of tobacco that I had hid under the mattress these three days, and not one of the nurses set eyes on it."

But the doctor was not to be denied.

"Out you go Hogan, on to the chair."

"Ach shure yer honour, sir, ye wouldn't demane yerself by making a bed for the likes of me. Let one of them girls be after making it. Shure isn't that what she's here for, and doesn't she make the lovely bed?"

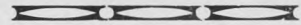
The doctor felt that he had to get him out, for a nurse was coming to give him his first lesson. Pat still objected.

"Shure a gentleman like yerself wouldn't be doing worrk of that kind. Isn't it the lovely hands ye've got for mending the poor people with, and what would they say to me if I let ye hurt them doing the hard work. Lave it alone yer honour, and let the young girl here do it for me. Anyway yer honour, I feel a bit wake this morning, and I wasn't thinking of rising, but maybe if I had a sup of porter, or a taste of whiskey, I might be stronger." It would have been a breach of the rules to have ordered a drink. Pat's principles were finally overcome at the price of a plug of tobacco.

When the doctor had gone, Pat called to a passing nurse.

"For the love of God, nurse darlint, will ye luk at that bed! Shure it'd break me leg over again to lie in it. He's a great doctor entoirely, but the holy angels watch over him if he ever lies on a bed the loikes o' that."

Article



Evacuation Hospitals' Problem in Germany in World War II

Dr. Wasyl Zajcew

In a recent Speech from the Throne it was said that war danger is nearer now than ever. The Defence Minister, Mr. Claxton, speaking in Quebec, underlined that the most important things for civilian defence are: Building of shelters, organizing sufficient ward fire protection, and organizing of new hospitals far away from big factories and large cities, that means far from places which probably will be attacked in the next war. These two speeches gave me the idea to say something about the hospital situation in Germany during World War II, particularly about the organization of evacuation hospitals.

I don't think World War III is inevitable; I believe, as many of you do, that the U.N. is strong enough to manage the very heavy world crisis, and the Russians have a great respect for the English, American and Canadian war potential. But, on the other hand, it is very good to be prepared for the worst while hoping for the best.

World War II brought many new problems which had to be solved in the shortest length of time, something in a very improvising way; and those problems showed that Germany hadn't been really so well prepared for total warfare as Goebbels shouted in his propaganda speeches and articles in "Des Reich."

In 1943 the Allied bombing increased more and more, and in March, 1943, on the annual holiday of the German Air Force, "Luftwaffe," came the first very heavy night attack on Berlin. Among other horrible destructions, two of Berlin's hospitals got light demolitions. For the first time it was clear that the red cross or red square over the roof did not protect civilian hospitals, as in the night the cross was impossible to be seen, and it was too difficult to spare a hospital between two factories during night bombing. It was difficult to say whether or not this was breaking of international laws and agreements, as a total warfare is difficult to put under The Hague Convention.

The health authorities in Berlin, Hamburg, Lubeck, Leipzig, Bremen, Aachen and other larger cities started to take steps toward organizing evacuation hospitals in some smaller towns far from large cities. But such movement was strictly forbidden as sign of panic. But the attacks increased again, and on the third of September, 1943, during a night bombing, one of the largest hospitals, Rudolph Virchow Hospital, lost about 80% of its 2,500 bed capacity, Robert Koch Hospital lost 40% of its 2,000 bed capacity, and Augusta Victoria Hospital lost 70% of its 1,200 bed capacity. You can imagine what the result can be for a town of 4,500,000 people from losing in one night about 4,000 beds for its patients. And the number of patients hadn't decreased. They increased with every day! Now the question of evacuation of some hospitals to places, far from Berlin and other large cities, became more acute. At the same time was started evacuation of all children, non-working mothers and old aged persons from these dangerous towns. The partial evacuation of hospitals was inevitable, but the only question was: "Where?" To erect new buildings was impossible. To divide the hospitals among the smaller places was not satisfactory as distribution of Berlin patients would be very difficult, and so would be the bringing of discharged people back to Berlin. And suddenly came the idea to evacuate the hospitals to southern health resorts, where there was plenty of more or less comfortable hotels with central heating and running water! The biggest hotels were under military hospitals occupation, but still there remained enough smaller hotels and rooming houses which could be used for civilian hospital purposes.

Berlin got 3 health resorts as her share, Karlsbad, Marienbad and Toeplitz-Schoenau. For all three places, about 200 miles from Berlin but on the same railroad, was given the name "Hospital of the capital Berlin," and it started its work in October, 1943. The largest part with about 2,000 beds was in Karlsbad, with internal, neurological, general surgical, urological, ophthalmological, orthopedical, and oto-rhino-laryngological departments. In Marienbad were placed internal, obstet-

rical and gynecological departments; physical therapy in Toeplitz-Schoenau.

The staff was divided between Berlin and the new hospitals. The work in Berlin, except university clinics, was mere emergency work. In cellars of destroyed and undestroyed hospitals were organized large wards with one big cellar operating room, with possibility for biggest operation for every hospital. Only emergency and acute operations were performed in those cellar operating rooms, and all other patients, post-operative cases included, were sent by hospital train to the evacuation hospitals. Hospital trains could take usually about 500-600 patients. There was a surgeon and internal medicine specialist in the train with well-trained nurses. Each train had its own O.R. for smaller operations, its own dispensary, and a well-organized kitchen. Returning trains brought back to Berlin discharged patients.

The instruments and other medical supplies, including x-ray apparatus, auto-claves, operating tables, kitchen utensils and so on, were brought from hospitals in Berlin. The operating rooms and x-ray rooms were put in bath-houses, where satisfactory rooms and floors were found. The evacuation hospitals organized their own central kitchen, with usual number of diets; central laundry for patients and staff; and very well equipped medical, bacteriological and serological laboratories. These hospitals hadn't their own anatomical-pathological institutions and local possibilities were used. The hotels supplied all, sometimes very old and historical, furniture and linen.

The work of doctors and nursing staff was very difficult. The hotels were not big, and only 40-50 patients were in one, seldom more. The hotels were far away from one another, and transportation facilities were only one's own feet, and stretchers for patients, as no cars were available for civilian sector. Sometimes one was compelled to perform treatment in old, half-dark historical rooms, where signs from Peter, Czar of Russia, and other historical characters remained. You can imagine old men after prostatectomy in beautiful beds in style of Madame Pompadour!

The food situation got worse and worse every day, and it was hard work for doctors and dietitians to manage dietary treatment and feeding of patients, as the hospitals were far from Berlin and local authority hated evacuation hospitals. In addition, most patients had slight or more severe vitamin deficiency, especially Vitamin C, and in hospital were given dry fruits and dry vegetables, seldom fresh fruits, sometimes beets and carrots. One good thing was that the hospitals' pharmacy could deliver sufficient amount of synthetic vitamin, but on the other hand there was not enough morphine derivatives, no hormone drugs and many other important drugs. Mostly substitutes were used.

There were difficulties from another viewpoint too; the patients who were far from home after awful night in Berlin, worried about relatives who remained in dangerous places, and such patients needed much more attention than usual. It was inevitable that every doctor and every nurse, should be good psychologists too. And at last the most important order was that every patient should be made well as soon as possible and sent back to work as the war news was drastic.

The evacuation hospitals existed 1½ years, and many thousands of patients were treated there. In 1945 they came under Russian (K. and T.S.) and American control. The Americans gave full support for the hospital in Marienbad, including food and medical supplies. But unbelievable was the destiny of hospitals under Russian supervision almost all nurses were raped, and some women-patients also, in spite of sickness. Many doctors and patients were shot down. Mostly patients were thrown from houses to the street! The remaining staff tried to get the patients away from

Berlin or to the American zone. Further destiny of these patients is unknown to me. Only a few reached their destroyed homes! This was the end of "Hospital of Capital, Berlin."

On finishing my short paper, I would like to underline once more how important it is to build reserve hospitals outside from big cities, or to be prepared to organize emergency hospitals in primitive buildings. Through such hospitals many lives can be saved, and many more can recover, which is very important for warfare! And I think we should keep in mind that patients, especially chronic cases, are in unnecessary danger in big cities during a war. The evacuated hospitals in Germany played their role very well!

I limited my story only to Berlin as I worked there, and took part in the organizing of evacuation hospitals. This work was for me a good example of how it is possible to work and give help to human beings in primitive hospitals under changed conditions, and this help by good will can be very effective.

Book Reviews

"Saints, Sinners and Psychiatry" is a deceptive title. From it one would gather that this is a book about men and women who have become famous by reason of their virtue or infamous by reason of their vice. This is not so. It does not deal with the very good or the very wicked, but rather with the reasons why every-day folk behave as they do.

The common goal of everyone is peace of mind. It is a goal towards which everyone strives but which few reach, for everyone is fettered to some degree or other by anxiety. This anxiety is due in no small degree to the fact that everyone in life constructs his own unique pattern of behaviour, and this he is driven to follow. Every pattern is complex in form but in essence is simple enough—it is the one which, in childhood, led to security and satisfaction. Thus if the child finds that aggression gains for him what he wants, he will continue to be aggressive as he grows older. Or if passive obedience won the temporary goal, in passive behaviour, that person will persist. The instinct to survival is just as strong in the infant as in the adult. The child, therefore, does those things which he finds effective in ensuring his chances of survival until constant use makes of them a habit. But life is seldom lived in equilibrium. Comfort is always threatened and often security itself is in danger. Then the pre-formulated plan may fail and even the threat of failure breeds anxiety in old and young alike.

Anxiety, then, engulfs or threatens to engulf everyone. Much of daily behaviour is planned

unconsciously to forestall anxiety—to avoid the distressing results it would surely bring. Against the physical expressions of disease the cellular and humoral mechanisms of defense are constantly on guard; but not infrequently they fail and their failure is followed by physical illness. In like manner psychological mechanisms of defense are in continual operation and, in like manner, these too, often prove inadequate. This inadequacy is revealed by evidence of anxiety, and then more desperate methods must be employed to get rid of the intruder.

The mechanisms upon which the distressed person may call are three in number. First, there may be an attempt to flee from the cause of the anxiety. The withdrawal may be physical or merely psychic. The patient may retreat into him or herself. Second, the harassed one fights back. He storms and rages. He is quick tempered, touchy. In the first instance—flight—the individual feels helpless and shows it. In the second instance—fight—the feeling of helplessness is no less great but it is concealed in the reaction of attack. The determinant of the course that will be followed is the early pattern.

The third mechanism of escape is by conversion of anxiety into physical symptoms. Physical pain is so much easier to endure than is mental distress. The localization of discomfort to a region or a system gives to the intangible, the "airy nothing" of anxiety a local habitation and (often enough) a name—sometimes a name with surgical connotation. And the conversion may be so complete that the patient is quite rid of his anxiety.

It is now generally accepted that man is not merely a physical organism but a psychological one also. As the child grows in body he grows also in mind. Physical growth depends upon physical food and upon the quality of the food depends the nature of the growth. Similarly psychological growth depends upon those things that feed it—contacts with (to the child) important people, the pressures of the environment and so on. These factors determine the structure of the mind and upon its structure depends the function. The process of becoming a "psychological person" begins early in life and is completed by adolescence. During that period traits take origin, develop and become fixed. The character structure is therefore set early in life and what happens thereafter is determined by the results of early experiment and experience.

Once his pattern has been laid down, each one is literally compelled to follow it. In it alone is he comfortable. Therefore he tries to make his environment and those with whom he comes in contact fit into it. The husband tries to adjust not himself but his wife, or the wife tries to change not herself but her husband, to fit the pattern to which each has been accustomed.

This effort on the part of individuals, of groups and even of nations, to gain comfort for themselves by changing the patterns of other individuals, groups and nations is largely responsible for the difficulties all experience in every sphere. If, for example we could get the Russians to follow our pattern there would be no threat of war. And, say the Russians, if we could get the democracies to accept our pattern we would be content. And so is it in the lesser spheres of husband and wife, of parent and child, of neighbour and neighbour.

The book under review deals with the factors which lead to the formulation and composition of psychological patterns, with the manner in which these patterns become structuralized and with the results of their compelling influence. It furnishes the reader with a key where with he is enabled to "decode" the patient's story and read it as in its actual meaning.

The concepts presented differ from the ideas commonly advocated. There has been a simplification of terminology also. But the general result is to make behaviour better understood and therefore to make simpler the task of understanding why people misbehave, and how mental distress often underlies physical disease.

It is now recognized by all doctors that an understanding of what may be called the physiology of the mind is no whit less important than an understanding of the physiology of the body. Hitherto this understanding has not been easy to gain. The authoritative works abound in terms which are not readily remembered or understood by the general reader. In this book some of the

old barriers are broken down and an insight is given into processes which prove simple in essence despite their complexity. The book would be more enjoyable if the method of expression were equal to the matter expressed, but despite its literary faults it is a volume that every doctor can read with profit. For those who have read much it crystallizes things and gives a "new slant." To those who are looking for an introduction to psychiatry it will be very welcome and very useful.

Saints, Sinners and Psychiatry, by Camilla M. Anderson, M.D., Assistant Clinical Professor of Psychiatry, University of Utah. J. B. Lippincott Company, Mont. Price \$4.00.

Understanding Your Migraine Headache is a book of 150 pages written especially for migraine sufferers. The senior author is a doctor who has spent many years in the study and treatment of this ailment. The junior author is his wife whom he first met as a patient. The combination of a doctor and a lay person, of a student of migraine and of a sufferer from the malady, makes this little volume unique because it results in fuller and more personal presentation than either could furnish alone.

According to the authors migraine affects close to 10% of the population of the United States. In addition, for every sufferer from frank hemicrania there are about two people who are afflicted by other manifestations which are essentially migrainous in nature even though the typical headache may be rare or absent. These "migrainoids," as the authors call them, go from doctor to doctor seeking relief from a variety of complaints as varied as mental confusion, compulsions, recurrent attacks of abdominal pain and periods of blindness. These symptoms may occur in the absence of headache but never in the absence of a family history of hemicrania.

The first chapter begins with a number of questions from the answers to which the reader determined whether or not he or she is a "migrainoid." Then follow chapters on the various manifestations of the disorder. These are illustrated by brief case histories and by statements made by patients. The symptom-range is shown to be much wider than a unilateral headache. An important chapter deals with marriage. It can be easily understood that the problems of the married state add to the stresses of the migrainous person and vice versa.

The authors say quite frankly that there is no cure for migraine. The remedies in use and the rationale of their use are given but no hint is supplied as to self-medication.

The chief purpose of the book is to enable sufferers to live with their ailment, to understand

something about why they suffer as they do and to remove the common fear that their symptoms (especially those other than the headache) are those of impending insanity.

The book should be helpful to the migrainous but those doctors who are inclined to think of migraine solely in terms of hemicrania will also profit by reading it.

Understanding Your Migraine Headache, by Carol F. Lippman, M.D., and Margaret Lippman. Greengard, New York. Price \$3.25.



"**Rheumatic Diseases**" is a volume in Saunderson's "Postgraduate Medicine and Surgery" series. It is prepared from the material presented at the Seventh International Congress on Rheumatic Diseases.

In all there are 86 contributions which are the talks (or abstracts of them) given at the Congress. The list of 194 contributors includes the names of all the recognized authorities on every aspect of the subject. The range of the papers is naturally great. There are some on histology, others on biochemistry. Hormone therapy and physical methods of rehabilitation are discussed. There are tables, microphotographs, diagrams and a large bibliography as well as a thirty-page index.

The 416 pages of text are divided into twenty chapters. The first is entitled "General Information About Rheumatic Diseases." The second is devoted to Rheumatic Fever. Then follow chapters on Rheumatoid Arthritis, Atypical Rheumatoid Arthritis, Rheumatoid Spondylitis and Reflex Dystrophy. Chapters 7 and 8 deal with Fibrositis, Psychogenic Rheumatism and Osteoarthritis.

Other chapters are: Effects of Endocrine Secretions; Gold Salts and Copper Salts; Orthopedic and Physical Treatment and Study; Specific Infectious Arthritis; Gout; Scleroderma; Pathology of Rheumatic Diseases; Physiologic Aspects of Rheumatic Diseases; Investigative Studies of Immune Reactions, Antigens and Enzymes; Studies on Blood Plasma and Amino Acids; Studies of Connective Tissue; Experimental Arthritis.

From the above it will be seen that this is a very complete and authoritative presentation of our knowledge of rheumatic diseases. Indeed it is the most comprehensive and up-to-date volume available on this important subject.

Rheumatic Diseases based on the Proceedings of the Seventh International Congress on Rheumatic Diseases. Prepared by the Committee on Publications of the American Rheumatism Association. 449 pages. Illustrated. 1952, W. B. Saunders Co. Canadian Agents: McAtosh & Co., Ltd., 1351 Yonge St., Toronto 5, Ontario. Price \$12.75.

The Clinical Use of Fluid and Electrolyte, by John H. Bland has been written for the purpose of supplying "a working knowledge of the physiology and chemical pathology of body water and electrolytes." This subject, during recent years, has assumed great importance but there has been a lag between the establishment of facts in the laboratory and the application of these facts at the bedside. It is desirable that important scientific information be in the possession of those attending the sick for only when it is in their hands that it can be utilized.

Fluid-electrolyte studies have proved that a knowledge of the subject may often spell the difference between success and failure in the treatment of many medical and surgical disorders. Indeed the author goes so far as to say "Awareness of departure from fluid and electrolyte normality, plus recognition of clinical symptoms and signs, as well as the proper use of repair solutions will probably be responsible for more lives saved than any other single therapeutic technique in the future."

In size the page is as large as a sheet of business stationery and there are 259 such pages divided into 13 chapters. The first is a discussion of the Basic Physiologic Considerations of Body Fluid and Electrolyte. Then follow chapters with these headings: "Pure," and Mixed Water and Sodium Chloride Depletion; Water and Electrolyte in Congestive Heart Failure; Normal and Abnormal Potassium Metabolism; Water and Electrolyte in Pediatric Patients; Fluid and Electrolyte in the Aging and Aged; Parenteral Fluids in Surgical Patients; Fluid and Electrolyte in Renal Disease; Fluid and Electrolyte in Diabetes Mellitus; Fluid and Electrolyte in Adrenal Cortical Insufficiency; Adverse Effects of Heat on Body Water and Electrolyte; ACTH and Cortisone; Physiological Effects in Body Fluid and Electrolyte; Behaviour of Body Water and Electrolyte in Shock, Burns, Crush and Blast Injury; Roentgen Irradiation and Exposure to Cold and Other Stress.

Seventy-four diagrammatic figures illustrate the text and a large list of references follows each chapter. The book is therefore very complete and up-to-date. It does not make the easiest of reading but it is clear and comprehensive and as easy to study as any book on this subject can be.

There is, unfortunately, no index but the arrangement is such that an index is not greatly missed. Another fault is the smallness of the type but, as it is a book to study rather than to read through, the drawback is lessened.

The Clinical Use of Fluid and Electrolyte, by John H. Bland, M.D., Assistant Professor of Medicine, University of Vermont College of Medicine. W. B. Saunders Co., 1952. Price \$6.85. Canadian Agents: McAtosh & Co., 1251 Yonge St., Toronto 5.

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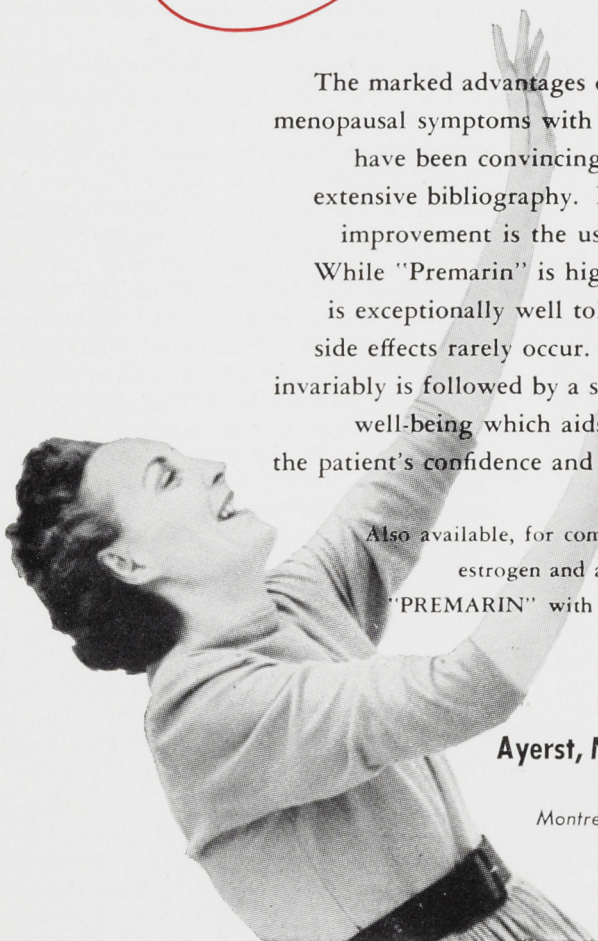


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Social News

Reported by K. Borthwick-Leslie, M.D.

Sincere congratulations to Professor I. M. Thompson, who since 1937 has been professor of Anatomy and Chairman of the Department of Anatomy in the Faculty of Medicine at the University of Manitoba. Professor Thompson has been named a Fellow of the Royal Society of Edinburgh, in recognition of his distinction as an Anatomist and in special recognition of his researches on the nervous system, relative to the anatomical mechanism of sensation.

Dr. M. R. MacCharles, who has been touring internationally for the World Health Organization, was in Ceylon when Prime Minister Senanayake was thrown from a horse and received his fatal injuries. Dr. MacCharles was called in consultation and retained as the diplomat's personal consultant. Just think if the injuries had been less serious "Baldy" might have come home riding on an elephant, and laden with Princesses, Jewels, or even a "Jaguar." That's Life!

The congregation of Elmwood King United Memorial Church really demonstrated their appreciation of 25 years faithful and conscientious work at the United Church Hospital at Vita, Man. Dr. and Mrs. Harold V. Waldron were presented with a dinner set, at a reception and presentation ceremony.

Dr. Elinor Black was honored by the members of the University Women's Club. At a reception held in the Club Rooms, Dr. Black was presented with an honorary membership in the Club.

It is with regret that we note the death of Col. Percy G. Bell, D.S.O., in Victoria, at the age of 66.

Col. Bell will be remembered by Manitobans as Professor of Ophthalmology in the College. Specialist in E.E.N. & T., as well as consultant at D.V.A. During the last war he was D.M.O. of M.D. 10 from 1940 to 1944.

Dr. Donald M. Mitchell, Clare Ave., Winnipeg, has been awarded a \$4,000 fellowship by the Canadian Arthritis and Rheumatic Society, Toronto. Dr. Mitchell who has been associated with the Manitoba Medical College will be granted a year's leave of absence to continue his post-graduate work at a United States medical centre.

Dr. and Mrs. Alan McCarten announce the birth of a son, Daniel Bruce, March 16, at the University Hospital, Edmonton.

Dr. and Mrs. G. M. Black, Portage la Prairie, announce the arrival of James Alexander, March 4, 1952.

Dr. and Mrs. Sam Kobrinsky announce the birth of their third son, Leonard Joseph, March 17. (St. Patrick's, eh what).

Dr. and Mrs. Henry A. Kaye, Melita, Man., happily announce the arrival of their second son, Dennis Michael, Feb. 27, 1952, at the Deloraine Memorial Hospital.

Dr. and Mrs. Howard Dixon, Santa Monica, Cal., announce the birth of Michael Cameron, March 20.

Dr. and Mrs. Stewart Orchard, Saskatoon, Sask., announce the birth of Bonnie Elizabeth, Feb. 12.

Dr. and Mrs. S. C. Windle, Nelson Apartments, announce the birth of a son, Bruce Howard, March 8.

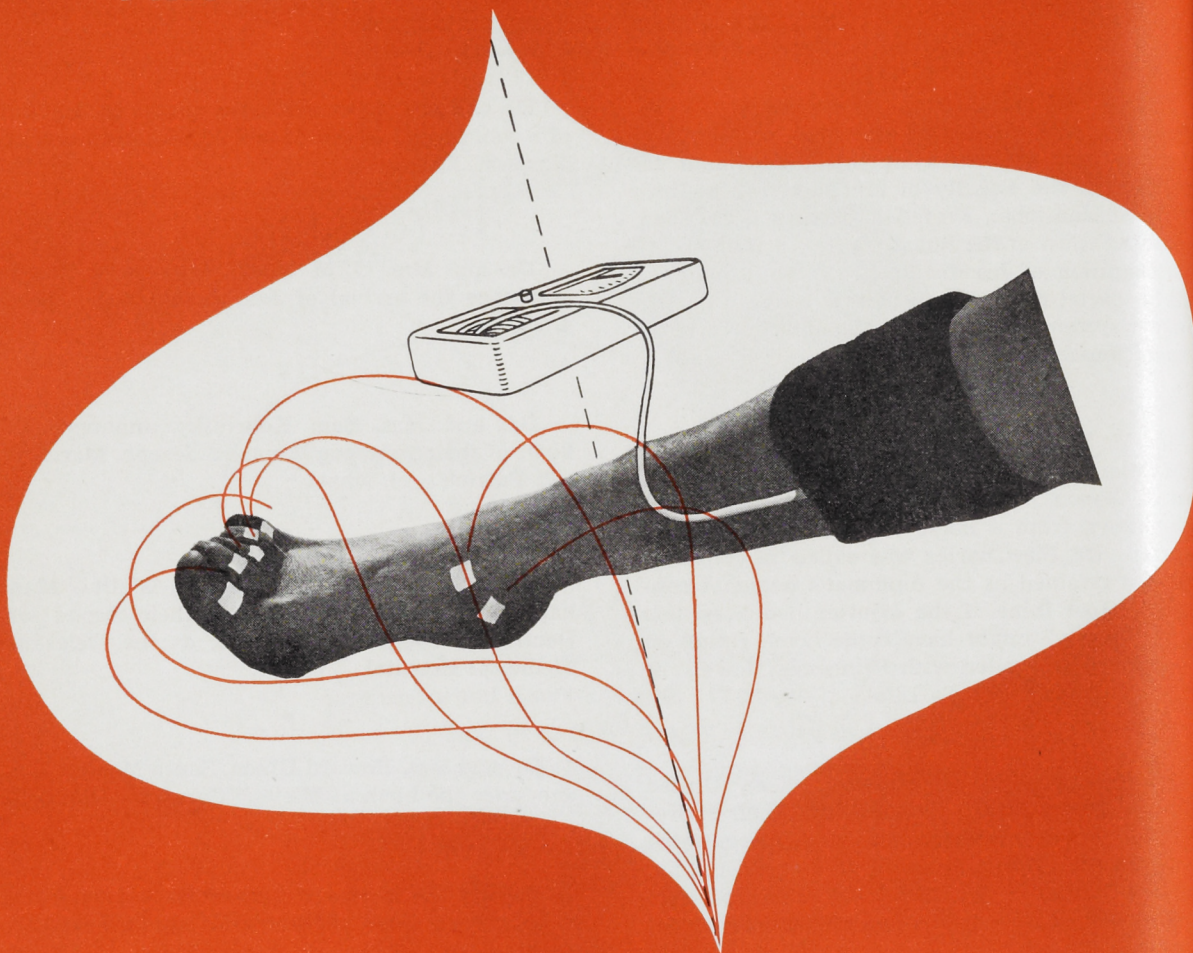
Born to Dr. and Mrs. James Clark (nee Val Newton), of Ventura, California, a son, March 14.

Dr. and Mrs. J. B. R. Cosgrove (nee Alison Chown), are happy to announce the arrival of a daughter, March 18, at London Hospital, London, England.

To all those lucky members who are travelling, holidaying in numerous far away lands, happy holidays and happy missing of this our gloriously unsettled spring.

As for me, I wouldn't miss this good old Fort Garry mud for anything, or would I!

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1. Reedy, W. J.: J. of Lab. & Clin. Med. 37: 365 (March) 1951

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Editorial

J. C. Hossack, M.D., C.M. (Man.), Editor

The 1952 Convention

This year the Convention will extend over four days—Oct. 7, 8, 9, 10th. Further, all sessions will be held at the hotel. The Committee feels that the presentation of clinical cases would be welcome and so the first 90 minutes of each morning will be devoted to that purpose. There are many conditions which leave the patient ambulant, and it would be much easier and much more convenient to bring a number of such patients to the hotel than to have a great many doctors crossing town and trying to find parking places at a busy hour. It will not be difficult to arrange the hall in such a way that everyone will be able to see the patients clearly.

There will be six guest speakers at least. Arrangements so far have been completed with Dr. Max Thorek. By next month we should be able to give you the names of most if not all of the others.

Meanwhile will intending contributors let us hear from them? The dead line for contributions is June 1st. We require with each offer of a paper (1) a short summary, suitable for a programme note, and (2) the assurance that a typescript will be furnished either before or immediately after the paper has been given. For the guidance of intending contributors let us repeat—each presentation will be limited to 20 minutes and this is approximately equivalent to eight pages of double-spaced typescript delivered without interruption. If slides, etc. are used the script should be proportionately shortened. Otherwise the ten minutes allowed for discussion may be encroached upon.

The meeting should be a very successful one. The introduction of clinical cases will be welcome and the holding of everything under one roof should also be welcome. The Committee believes that everyone will appreciate the opportunity to hear as many as possible out-side speakers, and it is their plan to furnish this opportunity.

Forgotten Fundamentals

Frank Hebb, M.D.

One of the most influential teachers of Medicine in our time, Dr. A. H. Gordon, is the author of the following: "In the progress of our art the case of illness may, by almost imperceptible stages, pass from being a person through the stage of being a problem and end in being regarded as so much material."

There seems to be little doubt that the rediscovery of the patient as a person constitutes an important challenge to Medicine today. Many physicians tend to regard the patient in terms of his physical and chemical functioning and in the light of his previous illness and his heredity. They tend to be more concerned with illnesses per se than the kinds of persons who suffer from them. They see their patients as instances of hyperthyroidism, gastric ulcer or hypertension and not as persons suffering from emotional disorders with somatic manifestations. This attitude may be quite satisfactory if the suffering derives from acute infections or is traumatic in origin, but for at least one-third of all patients who consult physicians this professional approach is unsatisfactory. The physician may have developed remarkable technical skill and yet be handicapped in his professional service because of his inability to understand the needs of his patients as human beings. Sick people are often frightened and helpless and dependent, like children. Doctors who are familiar with this psychological aspect of illness are apt to have a more tolerant attitude towards their patients. It therefore is as important to know what kind of patient has the disease as to know what kind of disease has the patient.

Every patient requires a different method of approach according to his psychological makeup, whether for the purpose of eliciting a reliable history, making a clinical examination or obtaining a sample from a vein. This, the frequently ridiculed "bedside manner" which secures the confidence of the patient, is of fundamental importance in Medicine. It is an art which is more often inborn than acquired and which develops with experience.

The depth and extent of fear among patients is not sufficiently realized. It is seen, for example, in the reaction of the public to heart affections which they persist in regarding as peculiarly dangerous to life. In the *Lancet*, September 15th, 1951, Sir John Parkinson states: "The truth is there are only a few varieties of heart disease which carry the risk of sudden death. Not only the risk but the resultant disability is exaggerated. After a coronary thrombosis a man will inquire about his chances of further attack; or if he does not ask he and his relatives will constantly think about it and they should be told that it is unlikely to happen though not impossible. Many patients a few months after such an attack are able and wise enough to forget about it. Then the unjustified idea is still held that in cardiac cases exertion must be restricted because it entails danger. Modern medical opinion allows children with congenital mal-formations of the heart to participate in any and every form of activity they can undertake without distress. It does them good, not harm and these children will not hurt themselves. Many

adults might, with advantage, follow the same rule in regard to their handicaps. You will have heard of the pathologist in the post-mortem room who said that he was not surprised at what people died of, but he was surprised at what they could live with." (William Boyd).

Sometimes we say too much to the patient. Here we often burden him with a load of anxiety which adds to the illness we are trying to relieve. Patients feel well until they are told they have high-blood pressure or a murmur. Then they become afflicted with many grievous symptoms which could be gathered from hearsay or from patent medicine advertisements. When we say too little it causes the fear of the unknown and the gaps may be filled in by the patient with alarming inventions and superstitions, e.g., a patient with shingles has nearly always been told by his grandmother that "if they meet in the middle you die." People with mild arthritis are usually terrified of becoming "crippled with rheumatism" and so on. In these cases re-assurance is more important than medicine.

Often we forget the patient. I refer to that kind of discussion where the patient is treated as if he were unconscious or stone-deaf or as if he were already on the postmortem slab. Sotto-voce murmurings about polysyllabic diseases awaken needless terror in their hearts. Again it is the unknown they fear most. They resent the omission of any clear statement of what is the matter and what should be done about it. A French cynic once remarked "Women and doctors alone know how necessary and beneficent to Mankind is the lie." Truth has often to be softened. Truth can be a terrible thing—it should be tempered but never falsified to those whom we serve. If a patient unfeignedly insists on truth it is his human right and he must be told. Put yourself in the patient's place. Someday you may have to. As for prognosis most patients who are ill want an answer to three questions. Shall I get well? How soon will this happen? If I cannot recover completely what will be the limits of my activity in the future? To frame answers is to reach the goal of much scientific thought and method; for in prognosis we see the combination of scientific knowledge and human understanding. It must be reduced to what the patient wants to know in terms he can understand. Whenever a definite and encouraging prognosis can be given the patient should have the benefit of it. To give a bad prognosis to the patient almost always does more harm than good. We should be encouraging but in doing so avoid unbridled optimism. Sometimes prognosis is too vague to justify an emphatic pronouncement; and it is better to be non-committal than to box the compass of probabilities and possibilities. The patients we forget are those who have a good prognosis but carry unnecessary burdens of anxiety about their health which limit their happiness and

activity and they bear these burdens for lack of re-assurance which could have been given without delay.

Sometimes we are guilty of physical cruelty, e.g., a man has secondary cancer and the primary focus may eventually be discovered at post-mortem. Often his last days are made uncomfortable by playing at "hunt the Primary" as one might "hunt the slipper." Then there are minor cruelties which can easily be avoided, e.g., by withholding a fractional test meal on a patient suffering from pernicious anaemia when he is admitted with a haemoglobin reading in the twenties. Administer liver first; his achlorhydria will keep! The Parkinsonian need not be pushed to see how far he totters forward nor should the patient with myxoedema be subjected to the indignity of hair-pulling by the clinician. There are enough other signs to make a diagnosis.

Turning now to problems in diagnosis with patients as persons: We know that in the fields of human physiology and pathology the scientific approach may establish a biological fact with exactitude; for example such simple determinations as a red-cell count or a figure in blood-chemistry. But experience soon shows that the isolated fact can be widely interpreted by reason of the many variables, the infinite permutations arising from the complexity of factors, and the integration of the systems which make up the human organism, not to mention the fallibility of the observer. Charles Nicolle wrote: "Error is all around us and creeps in at least opportunity. Every method is imperfect." Commonsense, which includes art and instinct, helps the observer to make the probable true interpretation. But there can be no substitute for a carefully taken and weighed history with examination and observation of the patient by competent clinicians. Without this information intelligent use of the laboratory as a diagnostic aid is not possible. Tests, no matter how well done, will not do the thinking for the clinician and such tests are not always demanded and employed with judgment. A diagnostic approach neglecting or misinterpreting history and physical findings reveals a lack of understanding by the physician and may be conducive to mischief, loss of valuable time, and unnecessary cost.

Today we do not tend to produce physicians as shrewd and as skilled in diagnosis as those individualists of the nineteenth and early twentieth centuries. As modern doctors with so many scientific checks at our command we would do well to imitate our forbears more closely by carefully orientating our cases before demanding wholesale laboratory work. What has been called "clinical instinct" is too often scoffed at and cynically described as "blind man's bluff." True science teaches us above all to doubt, to be careful and to be humble. I think we can accept Thomas

Huxley's view that Science is nothing but trained and organized commonsense. Commonsense appreciation of Medical Science must admit and recognize that though men are all of a pattern, the pattern is never the same.

Have science and its advances tended to make medical diagnosis appear easy and automatic? May I quote a Parisian surgeon (Burnand) who said: "We live under the rule of Pharmacy. The equation Disease A equals Drug A not only tyrannizes the minds of the public, it haunts the practitioner whose professional capacity is rated according to the skill with which he applies the formula. There is something still worse; Mass Medicine, socialized and mechanized to excess tends to substitute an even more deceitful equation: Symptom B equals Drug B. Faced with a difficult case, too many physicians think it advisable to try a series of drugs in the hope that a happy accident will point out the one good effective drug after a series of failures. The doctors are positively forgetting that the human organism possesses in itself defences and a potential for cure which they should utilize more often with more faith and who in our day thinks of the resources of another age . . . Morale, the will to health, the will to recover."

Medicine today is indeed tending to sacrifice Art for Science. If the scientific method becomes the end rather than the means then the future is gloomy, when patients are to be treated not as human beings but as a series of laboratory exercises and I feel that many will agree that today the Medicine of our forefathers is regarded too often as something quaint and curious, often absurd, and at times amusing, but useless and obsolete when viewed in the light of modern knowledge. This narrow view is as unfortunate as it is fallacious. The enormous accumulation of facts and the multiplication of discoveries have increased rather than diminished the necessity for a backward view. Some of our leading thinkers have dared to suggest that the pace has been too rapid and a little slackening of the speed might enable us to make a fuller use of the information at our disposal. Medicine which so deeply concerns mankind is both scientific and humanistic. We might do well to cultivate broader interests and to study theory besides practice—otherwise in gaining the whole world Medicine may be in grave risk of losing its own soul. Yesterday's contribution cannot be neglected.

Finally, may I say that Medicine with one per cent humanism and ninety-nine per cent technique would be almost as futile as Medicine which is ninety-nine per cent humanism and one per cent technique. Granted the team of humanism and technical excellence Medicine has a great future. To enter into our inheritance each and all of us must contribute according to his means and no contribution can be too small.

Bibliography

1. Parkinson, Sir John, The Patient and the Physician. The Lancet 2:830-831, December 22, 1945.
2. Grieve, J., Whither Medicine? (Letter to the Editor). The Lancet 2:131-133, July 28, 1951.
3. Whitby, Sir Lionel, The Science and Art of Medicine. The Lancet 2:131-133, July, 28, 1951.
4. Gordon, A. H., The Patient as a Person. Canad. M. A. J. 31:191-193, August, 1934.
5. Bartemeier, Leo H., The Attitude of the Physician. J. A. M. A. 145:1122-1125, April, 1951.
6. Burnand, R., Fear of Life and Magnificent Folly. Concours Medical 73:1563-1565, April 28, 1951.
7. Asher, R., Seven Sins of Medicine. The Lancet 2:358-360, August 27, 1949.
8. Guthrie, D., The Search for a Philosophy of Medicine. The Lancet 1:405-409, March 23, 1946.
9. Neal, M. Pinson, Diagnostic Drifts, Deceptions and Common Misses. J.A.M.A. 146:537-541, June 9, 1951.
10. Cole, Leslie, Prognosis and the Patient. The Lancet 1:1-3, January 5, 1946.

Section of Obstetrics and Gynaecology Honors Dr. F. G. McGuinness

On February 29th a dinner in honor of Dr. F. G. McGuinness was held by the Section of Obstetrics and Gynaecology. The toast to Dr. McGuinness was proposed by Dr. Elinor F. E. Black.

The Toast

This being the 29th of February, it gives me an excellent opportunity to exercise the time-honoured prerogative of that date. However, no doubt you feel that there is safety in numbers, so I shall bend my attentions to the beau of the ball, Frederick Gallagher McGuinness — and a fine broth of a lad he is, too!

There is no need for me to tell you anything about our guest of honour. All of us present, but two or three, learned obstetrics from his lips and hands. . . . He gave us also the opportunity of learning more than obstetrics, because of his knowledge of and facility in quoting the scriptures. I do not want Dr. McGuinness to think that this aspect of his teaching has fallen on stony ground. Verily, he has been an instructor of the foolish, a teacher of babe's methods of delivery. Truly he may say: "I have taught thee in the way of wisdom; I have led thee in the right paths. If thou forbear to deliver them until they are fully dilated, thou will not be guilty of perpetrating accouchement forcé. A good obstetrician awaits the fullness of time, neither shall he deliver any by his great strength."

Dr. McGuinness did a lot more for us than just teaching us our trade: he built us a fine maternity pavilion. I will liken him unto a wise man that built his house upon a rock—we know it was built on a rock, because we could see the piles down to bed-rock sticking out of the ground for many months before he was able to persuade the city fathers to get on with the job. Now he can contemplate the pavilion and say: "By the strength of my hand I have done it and by my wisdom: for I am prudent." The pavilion being completed, there was no need for him to say to us: "Go out into the highways and the hedges and compel them to come in, that my house may be

filled—and the songs in the temple shall be howlings in that day!” for no sooner were the first satisfied patients discharged than they went among their friends singing: “The zeal of thy house hath eaten me up!” and ever since then we have needed the third floor opened. Yea, verily, Dr. McGuinness, we shall be satisfied with the goodness of thy house, even of thy temple, for house and riches are the inheritance you have given us, and in all labor there is profit.

But our chief was not mindful of the patients only. He knows that the lives of accoucheurs are uncertain ones, and that babes shall rule over them and disrupt all plans and engagements. Therefore he furnished the very comfortable library, that the seats of the mighty shall be cast down in soft places. For this we are indeed indebted to him, and in his temple doth everyone speak of his glory.

Not only in our own circle and city has Dr. McGuinness gained friends and renown. His presidency of the Canadian Medical Association spread abroad his fame in all this country and even unto the ends of the earth is his name known and revered.

Nor must we forget his latest act of beneficence, which was to beguile the Priestesses of the White Cross to dedicate a culdescope to the Winnipeg General Hospital—an instrument which will bring to light the hidden things of darkness, for it is a light that shineth in a dark place.

* * *

Dr. McGuinness, with all this truth through nonsense, may I express to you the sincere gratitude of us all for what you have taught us, and what you have done for us. May health and happiness be yours, so thou shalt dwell in the land for many years.

Michael Reese Hospital Postgraduate School

The Michael Reese Hospital Postgraduate School is offering a one-week course in “Surgery—Indications, Pre- and Post-Operative Care,” from April 14th to April 18th, 1952. Clinical and didactic material in this full-time course will be presented by members of the Department of Surgery and co-operating departments. The course is designed for the practicing physician who wishes to keep abreast of current trends in surgery.

A one-week course in “Clinical Dermatology—Refresher Course in Diseases of the Skin for General Practitioners.” This full-time, intensive course will meet from April 21st to April 25th, 1952. Clinics and lectures will be conducted by the members of the Department of Dermatology and Syphilology.

Will be offering a two-week course in “Diseases of the Endocrines—Physiology and Diagnostic

Methods.” This full-time, intensive course will meet from April 28th to May 9th, 1952, and will be under the direction of Dr. Rachmiel Levine, Director, Department of Metabolic and Endocrine Research. Basic principles will be presented with a review of recent advances in the field. The course is designed for clinical application.

Will be offering a two-week course in “Recent Advances in International Medicine,” from May 12th to May 24th, 1952. This full-time, intensive course encompasses a systematic review of recent advances in the various branches of internal medicine. The clinical and didactic material will be presented by members of the Department of Internal Medicine, other Clinical Departments and of the Division of Laboratories and Research.

A one-week course in “Recent Advances in Pediatrics—Diagnostic and Therapeutic Measures,” from May 26th to May 31st, 1952. Recent advances in Pediatrics, including the presentation of clinical as well as didactic material. For the pediatrician and other physicians who limit their practice largely to children. The course will be presented by the Department of Pediatrics and co-operating departments.

For further information, address: Dr. Samuel Soskin, Dean, 29th St. and Ellis Ave., Chicago 16, Illinois.

\$630,000 Markle Fund Grants For Medical School Scientists

5-Year Grants for 21 Faculty Members

Twenty-one young scientists, all medical school faculty members, have been named as the fifth group of Scholars in Medical Science by the John and Mary R. Markle Foundation. This is the largest number appointed for any year since the programme began in 1948, John M. Russell, executive director of the fund, announced. With total appropriations of over \$2,500,000 for this programme, the Foundation is now making grants toward the support of 87 doctors in 49 medical schools.

The purpose of the programme is to help relieve the shortage of medical school teachers and investigators by providing academic security and financial assistance for young faculty members early in their careers. All grants are made direct to the medical schools at the rate of \$6,000 annually for five years, and are earmarked for support of a specific Scholar and his research.

Among the twenty-one Scholars whose appointments begin in 1952 is John B. Armstrong, M.D., assistant professor of physiology, University of Manitoba Faculty of Medicine (M.D., University of Toronto). Physiology: cardiopulmonary research. Grant to the University of Manitoba Faculty of Medicine.

Winnipeg Medical Society

Reported by Murray Campbell

Report of Nominating Committee

Nominations for Officers—Winnipeg Medical Society—1952-53

The following members of the Society have been proposed by the Nominating Committee for election to office as designated for the year 1952-53:

President	Dr. A. E. Childe
Vice-President	Dr. Gerard Allison
	Dr. David Swartz
Secretary	Dr. L. R. Rabson
	Dr. Earl Stephenson
Treasurer	Dr. Dwight Parkinson
	Dr. Sterling Dowling
Trustee	Dr. Arthur Birt
	Dr. Henry Funk

In accordance with the Constitution, additional nominations may be made from the floor by any active or life member at the time of election in May, 1952.

Monthly Meeting

The regular monthly meeting of the Winnipeg Medical Society was held at the Medical College on February 22 with the president, Dr. S. Boyd, in the chair. There were about 75 in attendance.

Following the business session Dr. J. C. Wilt discussed "Medical Mycology." Fungus diseases are classified clinically into superficial, intermediate and deep. The superficial ones are among the commonest and oldest disease of man. Very few people have not been affected at one time or another with a tinea infection, usually of the feet, groin or trunk, tinea pedis, inguinale, or corporis. Tinea capitis, unguum and barbae, are not uncommon however. The organisms associated with these superficial diseases are included in three genera; the Trichophytons, Microsporum and Epidermophytons. In recent years a good deal has been done in eliminating synonyms and in simplifying classifications.

Fungal infections of mucus membranes of the mouth, vulva vagina and rectum occur in patients under prolonged antibiotic therapy. This is due to suppression of the normal bacterial flora of these membranes by the antibiotic. The depressant action of the bacterial flora on the monilia is thus removed, and the monilia reproduce in sufficient numbers to cause a stomatitis, proctitis, or vulvo-vaginitis.

The intermediate group of organisms infect the subcutaneous tissues primarily, but eventually extend superficially and deeply. Cervico facial actinomycosis is the only member of the group seen

commonly in Manitoba. Actinomycosis of lungs and cecum occurs less often.

Actinomyces was at one time considered to be a parasite of grain stalks; when these were masticated, the organisms sometimes entered the tissues through breaks on the mucus membrane, initiating the disease. It is now known that many people carry Actinomyces on the mucus membranes of the gums, and that following trauma to the membrane, an infection may develop. Respiratory infection is caused by inhalation of organisms and intestinal actinomycosis by swallowing them. For an infection to become established there must have been some preceding trauma or pathological process.

This talk was illustrated by instructive lantern slides.

Dr. Jeffery Morris discussed Biochemical and Clinical Considerations of Potassium Depletion. The role of potassium in disorders of acid-base balance has only been adequately appreciated in the past ten years since the recognition that a dynamic equilibrium existed between cellular and extracellular potassium. The previous concept of cellular impermeability to potassium ions was dealt a deathblow by the splendid work of Darrow and others, who clearly demonstrated experimentally that potassium migrates out of the cell and that this movement moreover gives rise to changes in extracellular chloride and sodium bicarbonate concentrations.

Potassium is distributed in the body in 35 litres of cell water and 14 litres of extracellular water including that in the vascular compartment. Whereas the normal plasma (and extracellular fluid) concentration is 20 mg.% (5m. eq./l), the intracellular fluid has about twenty times this concentration—450 mg.% or 115m. Eq./l. This concentration gradient is maintained, in spite of a permeable cell membrane by the forces produced from oxidative processes within the cell. It is necessary to recognize potassium deficit clinically and biochemically. Usually intracellular and extracellular depletions occur together but they can exist separately. A pure extracellular depletion occurs characteristically in periodic paralysis. The signs and symptoms of this hypokalemic state includes severe paresis of muscles and generalized weakness. There may be hypotension and characteristic electrocardiographic changes which include a low and broad T wave with a sagging ST segment and a lengthened QT interval. The electrocardiogram serves as a quick method for following rapid changes in serum potassium levels particularly resulting from enthusiastic parenteral therapy.

Cellular depletion usually is associated with extracellular depletion and is accompanied by weakness, apathy, occasional muscle tenderness, abdominal distention, disorientation and in severe case pulmonary oedema. There is an accompanying metabolic alkalosis.

Parenteral therapy is dangerous particularly when oliguria exists. The hazard lies in the speed of intravenous injection and the concentration of the infusion. No greater concentration than 0.5% potassium chloride should be used and infused intravenously not faster than 5 ccs. per minute. Even a transient increase in plasma concentration to 40 mg.% (10m. Eq./l) gives a risk of immediate death from cardiac arrest. In the presence of normal renal function unlimited amounts of potassium salts can be given by mouth without fear of intoxication. While potassium alone may temporarily replace the deficit it should be emphasized that in the absence of glycogen or protein synthesis, potassium will not be effectively retained by the cell. Glucose and insulin, protein and protein hydrolysates should also be provided.

Dr. Ian Monie reported on Studies on Human Abortion Ova with particular reference to the disproportion between volume of amniotic fluid and the size of embryo. He noted that there is practically no information regarding the "normal"

volume of amniotic fluid at any given stage of pregnancy in man. Slides were shown of scattergraphs of sixteen normal specimens which suggested that in the present series the increase of amniotic fluid follows the pattern of a geometric progression. Further investigations are to be carried out.

The topics discussed were presentations from the Department of Pathology, the Department of Biochemistry, and the Department of Anatomy, University of Manitoba.



Psychiatric Section of Manitoba Medical Association

The above section met at Selkirk Mental Hospital of Feb. 20, 1952. The following officers were elected: Dr. George Little, President; Dr. John Matas, Vice-President; Dr. Gordon Stephens, Secretary-Treasurer.

Dr. Edward Johnson and his staff were hosts for a very enjoyable dinner, after presentation of the following papers: "Treatment of the Psychoses in the Aged," by Dr. R. H. Tavener; Case Report, "Myxedematous Madness?" by Dr. D. J. Buchan, and Discussant, Dr. M. M. Musgrove; a Case Report, "Cortisone in Schizophrenia," by Dr. J. Matas.



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College of Physicians and Surgeons of Manitoba

Council Meeting

October 13th, 1951

The Sixty-sixth Annual Meeting of the Council of the College of Physicians and Surgeons of Manitoba was held Saturday, October 13th, 1951, at 1 o'clock a.m., at the Medical College, Winnipeg.

The President, Dr. I. Pearlman, called the meeting to order.

1. Roll Call

The following members were present:

Doctors L. Pearlman, President; F. K. Purdie, Vice-President; T. H. Williams, Treasurer; M. T. Macfarland, Registrar; G. P. Armstrong, B. D. Best, W. J. Eoyd, C. E. Corrigan, B. Dyma, H. Guyot, Ed. Johnson, Wm. Malyska, T. W. Shaw, C. B. Stewart, C. H. A. Walton and C. W. Wiebe.

The President presented the following list of names of members of the College deceased during the year:

Doctors:

William Thomas Barrett, Victoria, B.C.
Robert James Rose Bright, Bobcaygeon, Ont.
James Victor Connell, Spencerville, Ont.
Joseph Jerry Diner, Vancouver, B.C.
Edwin John Eacrett, Mission City, B.C.
James Alfred Gorrell, Vancouver, B.C.
William Oliver Henry, Deloraine, Man.
Bruce Hill, Winnipeg, Man.
Archie Vivian Jubb, MacGregor, Man.
Arnot Glassup Vivian Leishman, Winnipeg, Man.
Charles Victor McClelland, Pilot Mound, Man.
William Morrison, Gilbert Plains, Man.
George Stuart Musgrove, Basrah, Iraq.
Patrick Joseph O'Dwyer, Zurich, Ont.
Sydney James Shepard Peirce, Brandon, Man.
William George Reilly, Montreal, P.Q.
Daniel Gordon Ross, Bracebridge, Ont.
Charles Tilley Sharpe, New York, N.Y.
Harry Martindale Speechly, Winnipeg, Man.
Wilfred Albert Wilson, Edmonton, Alta.
Jeroch Louis Wiseman, Winnipeg, Man.

A period of silence was observed in memory of these members.

2. Reading of Minutes and Their Approval

The Registrar stated that the minutes of the May Council meeting had been circulated to the members of Council.

Motion: "THAT the minutes of the May Council meeting be taken as read." Carried.

3. Reports of Officers and Their Consideration

A. Registrar's Report

Mr. Chairman and Members of Council. It is indeed a pleasure to acknowledge, with appreciation, the wholehearted co-operation of the officers of Council and committee members.

Meetings

During the year there have been:

1 special meeting of Council on May 23rd.

4 meetings of the Executive Committee, 3 prior to and 1 subsequent to May meeting of Council.

6 meetings of the Registration Committee, 4 prior to and 3 subsequent to May meeting of Council.

1 meeting of the Legislative Committee prior to, and 1 meeting each of the Discipline and the Taxing Committees subsequent to May meeting of Council.

Mimeographed copies of all meetings except those of the Discipline and Taxing Committees have been circulated to members. Not all have been printed in the Manitoba Medical Review.

Certificates

Of 47 applications for Student Registration all were granted—several applications have not yet been received from this year's class. Of 87 applications for Enabling Certificates 81 were granted, among them the first to a graduate of the Faculty of Medicine, University of Ottawa. Since correspondence, collection of documents, personal interviews and consideration of applications has greatly increased, the fee charged for the Enabling Certificate, for other than Manitoba graduates, has been increased to Twenty-five Dollars (\$25.00) with a credit of Twenty Dollars (\$20.00) towards subsequent registration. The fee became effective on July 18th, 1951.

Of 23 applications for Certificates of Licence (Temporary) all were granted.

The schools from which applicants graduated were as follows: Manitoba 11, other Canadian 7, U.S.A. 1, United Kingdom 3, Australia 1. 9 applicants were employed in Greater Winnipeg as follows: postgraduate studies 8, Military Service 1. 14 applicants were employed outside Greater Winnipeg as follows: Public Health 1, Military Service 4, tuberculosis 1, locum tenens 8. The increase in temporary licences was due to the elimination of registration fee for military personnel who are registered and in good standing in another Canadian province, to an increase in the number of persons entering military service on a temporary basis, and to the establishment of a licence for those serving as a Locum Tenens for another physician.

6 of the Temporary Licences were cancelled, and 4 were replaced by permanent registration certificates. At the end of the College year, 10 remained in effect in and 4 outside Greater Winnipeg, while 5 were outside the Province.

Of 71 applications for Registration, for which all supporting documents were presented, all were

granted. 8 were replacing temporary licences. The schools from which applicants graduated were as follows: Manitoba 35, other Canadian 11, U.S.A. 3, United Kingdom 13, European 4, Asia 3, New Zealand 1, Australia 1.

33 were employed in Greater Winnipeg, 29 outside Greater Winnipeg, 3 other locations in Canada, 2 U.S.A., 2 United Kingdom, 2 Asia; while 7 registrants had not practised in the Province at the end of the College year, 36 remained in and 25 outside Greater Winnipeg, and 6 were outside the Province. Less shifting in public health personnel was noted during the year due probably to increased salary attraction.

Registered doctors in Manitoba, Sept. 30, 1951:

	Perm.	Temp.	Total
Greater Winnipeg	550	14	564
Outside Winnipeg	230	5	235
	780	19	799

This is the largest number of doctors ever registered and resident in this Province.

Changes in the Register

During the year October 1, 1950 to September 30, 1951, in addition to those who were fully or temporarily registered, 21 members were removed by death, Winnipeg 4, Rural Manitoba 5, outside Manitoba 12. The name of one member was ordered erased. 61 members left the Province, while 16 previously registered returned to the Province. There were 84 changes of address within the Province, and 19 changes of address outside the Province.

Since October 1, 1950, approximately 154 inquiries, by letter or in person, have been received in the office from European graduates in medicine.

Members Granted Life Membership
October 1, 1950 - September 30, 1951

- Bjornson, Sveinn Erickson, Oak River
- Brereton, Thomas Cloudsley, Winnipeg
- Campbell, William Ewart, Winnipeg
- Fryer, Irvin Offero, Winnipeg
- Henry, William Oliver, Deloraine (deceased)
- McCann, Albert Sidney, Winnipeg
- McClelland, Charles Victor, Pilot Mound (deceased)
- McIntyre, Donald Faisson, Winnipeg
- Murray, William Anderson, Winnipeg
- Yule, Robert Foreman, The Pas

Cash Receipts

Annual fees			\$ 3,526.00
Registrations	65 x \$100		\$6,500.00
	1 x 95	95.00	
	7 x 90	630.00	
			7,225.00
Temporary Licences	17 x 10	170.00	
	6 x 5	30.00	
			200.00
M.C.C. Certificates	75 x 5	375.00	
	6 x 25	150.00	
			525.00

G.M.C. Certificates	9 x	5	45.00
Student Registration	47 x	1	47.00
Miscellaneous			
Lists of changes	45 x	1	45.00
Lists of doctors	45 x	3	135.00
Payment of night letter			1.50
Overpayment, Dr. A. Mauriello			5.00
U.S. Premiums			11.31
			197.81
			\$11,765.81

Arrears of Annual fees—1950, 7; 1951, 18.

Motion: "THAT the Registrar's report be adopted." Carried.

B. Treasurer's and Auditors' Reports

Your Treasurer begs to submit the following report for the year 1950-51. Herewith also submitted is the report of your auditors:

Gordon Bell Memorial Trust Account

There was one bond of \$500.00 matured and called in during the past year and this was replaced by another \$500.00 Dominion of Canada 3% bond maturing in 1966. In addition one \$500.00 Dominion of Canada 3% bond, 1966 was purchased from balance on hand in this account as authorized at last Council meeting. The bonds now held in this account total \$25,500.00.

As authorized by last Council meeting a payment was made to Dr. Ashley Thomson of \$1,000.00 plus exchange and transmission charge of \$1.56.

Cash balance in this account at September 20th, 1951, was \$842.53.

The Gordon Bell Memorial Trust Committee has authorized the payment of \$150.00 per month for one year beginning July 1st, 1952, to Dr. Colin Ferguson. Income in the account from bond interest will provide funds for these payments if no other grant is made until this one is completed. In the event of another grant being made before this one is completed it will be necessary to sell bonds to meet payments.

Investment Trust Account

There have been no bonds called at maturity in this account during the past year. As authorized by Council there have been added to this account \$4,000.00 Dominion of Canada 3% bonds 1966 purchased from funds in the non-interest bearing Current Account. This brings the total of bonds in this account to \$60,000.00.

Receipts

Cash on hand Oct. 1, 1950	\$1,214.15
Interest received from bonds and bank bal.	1,755.27
	\$2,969.42

Disbursements, 1950-51

Medical College Library Statutory grant	\$ 750.00
Man. Medical Assoc. Extra Mural Expense	240.78
	\$ 990.78

Cash balance on hand September 30, 1951, \$1,978.64.

This shows a net gain in this account for the year of \$765.59.

Current Account 1950-51

Total revenue in this account for the year amounted to \$11,765.81 and total disbursements for current expenses to \$8,275.06 showing an excess of revenue over disbursements of \$3,490.75. The greater part of this has been from registration fees of graduates of other Universities desiring registration in Manitoba and many of whom then register for practise in Hong Kong or other Commonwealth areas. Many of these are Chinese graduates and others are missionary doctors going to British controlled lands. This satisfactory excess of revenue over disbursements cannot be depended on to continue and at the same time increases in all costs continue to rise and will probably continue to do so for some time at least. The excess of revenue over disbursements for the year is \$400.00 less than for the preceding year.

During the year \$4,000.00 Dominion of Canada 3% bonds maturing in 1966 were purchased from this account and added to the Investment Trust Account as above noted.

The balance on hand in this account at September 30, 1951, is \$4,285.11 compared with \$5,569.35 a year ago.

While the available cash on hand after purchase of additional bonds and the continued excess of receipts over expenditures is gratifying your Treasurer wishes to again warn that much of this income is from issuance of registration to transients and that any outbreak of generalized war would entirely cut off this uncertain revenue and at the same time greatly reduce registrations of our own graduates. It is not a permanent dependable source of income.

Meanwhile current expenses continue to rise steadily and can be expected to do so during the coming year. There is, however, a satisfactory balance in the current account and we should not encounter any financial difficulties during the coming year.

Your Treasurer would also point out that the increase of bond holdings is not more than maintaining the purchasing power of our holdings since the value of the dollar continues to decline.

Should the College decide to do something about acquiring property for a permanent headquarters in Winnipeg we will require all the savings available and probably more also.

Respectfully submitted,

T. H. Williams, M.D., C.M.
Treasurer.

Auditors' Report

PRICE, WATERHOUSE & CO.

Toronto General Trusts Building,

Winnipeg, October 12, 1951.

The College of Physicians and Surgeons of Manitoba,
Winnipeg, Manitoba.

Dear Sirs:

In accordance with the instructions of your Registrar, we have made an examination of the books and records of The College of Physicians and Surgeons of Manitoba for the year ended September 30, 1951, and for your information we submit the following statements:

Gordon Bell Memorial Fund:

Statement of the Fund— September 30, 1951	Exhibit I
Statement of Changes in the Fund during the year ended September 30, 1951	Exhibit IA
Statement of Cash Receipts and Disbursements for the year ended September 30, 1951	Exhibit IB

The Investment Account:

Statement of the Fund— September 30, 1951	Exhibit II
Statement of Changes in the Fund during the year ended September 30, 1951	Exhibit IIA
Statement of Cash Receipts and Disbursements for the year ended September 30, 1951	Exhibit IIB

Current Account:

Summary of Cash Receipts and Disbursements for the year ended September 30, 1951	Exhibit III
Statement of Cash Receipts for the year ended September 30, 1951	Exhibit IIIA
Statement of Cash Disbursements for the year ended September 30, 1951	Exhibit IIIB

In connection with these statements and our examination of the records we would offer the following comments:

Government of Canada Bonds:

We attended at the safety deposit vaults of The Bank of Toronto on October 3, 1951 and, in conjunction with Dr. T. H. Williams and Dr. M. T. Macfarland, examined the Government of Canada bonds of a par value of \$25,500.00 as shown under the heading of Gordon Bell Memorial Fund and bonds of a par value of \$60,000.00 as shown under the heading of Investment Account. All of the bonds examined by us were seen to be fully registered in the name of The College of Physicians and Surgeons of Manitoba.

Funds on Deposit:

The balances on deposit with The Bank of Toronto at September 30, 1951 in the two savings accounts and the current account have been reconciled with a certificate received by us direct from the bank.

Receipts and Disbursements:

With the exception of the funds on deposit in the current account, which account is non-interest bearing, we have seen that interest has been received on all investments and funds. In the case of the current account we have checked the stubs of receipts issued by the Registrar in connection with registration fees, certificates, annual fees, etc., against the book entries. As a test to ascertain that annual fees received had been properly accounted for we traced the amounts shown in the cash book to the official lists of all members prepared by the College as at September 30, 1951, and at the same time listed any fees which were in arrears as at September 30, 1951; this list of arrears was agreed with a memorandum record maintained by your Registrar.

Included in the registration fees of \$7,225.00 shown on Exhibit IIIA is an amount of \$200.00 for which certificates have not been issued as, we are informed, the applications are pending approval of the committee.

In regard to payments from Gordon Bell Memorial Fund and the Investment Account, we have examined bank advices, minutes and approved vouchers.

With regard to disbursements from the current account we have examined the paid cheques and relative approved vouchers in respect of the items appearing in the books. As the statements submitted relate only to cash receipts and disbursements, we have not gone into the question of any arrears in respect of fees or liabilities outstanding as at September 30, 1951, except to the extent mentioned previously in this report in regard to fees.

The salary of the registrar has been increased by \$800.00 per annum effective April 1, 1951, in accordance with a Council resolution of May 23, 1951.

We shall be pleased to furnish you with any additional information you may desire in regard to the attached accounts.

Yours very truly,

Price, Waterhouse & Co.

Exhibit I

The College of Physicians and Surgeons of Manitoba

Gordon Bell Memorial Fund

Statement of the Fund, September 30, 1951

INVESTMENTS

Government of Canada bonds fully registered in the name of The College of Physicians and Surgeons of Manitoba and carried at par:

3 per cent Victory loan due 1957,
1 bond of \$1,000.00 numbered
L4 M39923 \$ 1,000.00

3 per cent Victory loan due 1966,
4 bonds of \$5,000.00 each numbered
P7 V14618 - 19 - 20 - 21, 3 bonds of
\$1,000.00 each numbered P7 M56243,
M129375-6 and 3 bonds of \$500.00 each
numbered P7 Z73629, Z86255 and
Z87584 24,500.00

Funds on deposit with The Bank of Toronto,
per Exhibit IB 842.53

Amount of the fund, September 30, 1951,
per Exhibit IA \$26,342.53

Exhibit IA

The College of Physicians and Surgeons of Manitoba

Gordon Bell Memorial Fund

Statement of Changes in the Fund

During the year Ended September 30, 1951

Amount of the fund, October 1, 1950 \$26,579.82

REVENUE RECEIPTS

Interest on bonds \$ 752.88
Interest on funds on deposit with
The Bank of Toronto 10.74

763.62

\$27,343.44

Add—Premium received on bond called for
redemption 5.00

\$27,348.44

Deduct—

Premium paid on bonds purchased
during the year \$ 4.35
Scholarship paid to Dr. A. E. Thomson 1,001.56

1,005.91

Amount of the fund, September 30, 1951,
carried to Exhibit I \$26,342.53

Exhibit IB

The College of Physicians and Surgeons of Manitoba

Gordon Bell Memorial Fund

Statement of Cash Receipts and Disbursements

For the Year Ended September 30, 1951

Balance of uninvested funds, October 1, 1950 \$ 1,579.82

CASH RECEIPTS

Redemption of Government of Canada
3 per cent Victory loan bond due
June 15, 1951, called at \$101.00 \$ 505.00
Interest on bonds \$ 757.50

Less—Accrued interest on bonds
purchased during the year 4.62

752.88

Interest on uninvested funds 10.74

1,268.62

\$ 2,848.44

CASH DISBURSEMENTS

Purchase of Government of Canada 3 per
cent Victory loan bonds due September
1, 1966, of a par value of \$1,000.00 \$ 1,004.35
Scholarship paid to Dr. A. E. Thomson 1,001.56

2,005.91

Uninvested funds, September 30, 1951,
carried to Exhibit I \$ 842.53

Exhibit II

The College of Physicians and Surgeons of Manitoba

The Investment Account

Statement of the Fund, September 30, 1951

INVESTMENTS

Government of Canada bonds fully registered in the name of The College of Physicians and Surgeons of Manitoba and carried at par:

3 per cent Victory loan due 1957,
1 bond of \$500.00 numbered
L4 Z45631 \$ 500.00
3 per cent Victory loan due 1959,
4 bonds of \$10,000.00 each numbered
L7 X04926 - 7 - 8 - 9 and 1 bond of
\$5,000.00 numbered L7 V05687 45,000.00
3 per cent Victory loan due 1966,
1 bond of \$5,000.00 numbered P7
V13695, 9 bonds of \$1,000.00 each
numbered P7 M103575-6-7, M129373-4,
M152612-3-4-5 and 1 bond of \$500.00
numbered P7 Z72097 14,500.00

\$60,000.00

Funds on deposit with The Bank of Toronto,
per Exhibit IIB 1,978.62

Amount of the fund, September 30, 1951,
per Exhibit IIA \$61,978.62

Exhibit IIA

The College of Physicians and Surgeons of Manitoba

The Investment Account

Statement of Changes in the Fund

During the Year Ended September 30, 1951

Amount of the fund, October 1, 1950 \$57,214.18

Add:

Amount transferred from the
Current Account \$ 3,917.16
Discount on Government of Canada
bonds purchased during the year 95.00

4,012.16

\$61,226.34

REVENUE RECEIPTS

Interest on bonds \$ 1,727.84
Interest on funds on deposit with
The Bank of Toronto 15.27

1,743.11

\$62,969.45

Deduct:

Grant to Medical Library \$ 750.00
Manitoba Medical Association
re expenses of extra-mural lectures 240.78

990.78

Amount of the fund, September 30, 1951,
carried to Exhibit II \$61,978.62

Exhibit IIB

The College of Physicians and Surgeons of Manitoba

The Investment Account

Statement of Cash Receipts and Disbursements

For the Year Ended September 30, 1951

Balance of uninvested funds, October 1, 1950 \$ 1,214.18

CASH RECEIPTS

Amount transferred from the
Current Account \$ 3,917.16
Interest on bonds \$1,740.00
Less—Accrued interest on bonds
purchased during the year 12.16

1,727.84

Interest on uninvested funds 15.27

5,660.27

\$ 6,874.45

CASH DISBURSEMENTS

Grant to Medical Library \$ 750.00
Manitoba Medical Association
re expenses of extra-mural lectures 240.78
Purchase of Government of Canada 3 per
cent Victory loan bonds due September
1, 1966, of a par value of \$4,000.00 3,905.00

4,895.78

Uninvested funds, September 30, 1951,
carried to Exhibit II \$ 1,978.62

Exhibit IIB

The College of Physicians and Surgeons of Manitoba

Current Account

Summary of Cash Receipts and Disbursements

For the Year Ended September 30, 1951

Cash in The Bank of Toronto as per books,
October 1, 1950 \$ 5,568.58

Cash receipts, Per Exhibit IIIA 11,765.15

\$17,333.73

Cash disbursements, Per Exhibit IIIB 9,132.22

\$ 8,202.57

Deduct:	
Amount transferred to Investment Account	3,917.16
Cash in The Bank of Toronto as per books, September 30, 1951	\$ 4,285.11
Reconciliation of Cash in The Bank of Toronto As Shown by Bank Statement with Amount As Shown by the Books	
Cash in The Bank of Toronto as per bank statement	\$ 4,295.11
Deduct—Outstanding cheques:	
Dr. C. E. Corrigan	\$ 5.00
Dr. W. J. Boyd	5.00
	10.00
Cash in The Bank of Toronto as per books, September 30, 1951	\$ 4,285.11

Exhibit IIIA

**The College of Physicians and Surgeons of Manitoba
Current Account
Statement of Cash Receipts
For the Year Ended September 30, 1951**

Registration fees	\$ 7,225.00
Temporary Licenses	200.00
Certificates:	
M.C.C.	\$ 530.00
G.M.C.	45.00
	575.00
Annual fees	3,526.00
Medical students registration fees	47.00
Sales of Mailing Lists	180.00
Miscellaneous income	12.81
Total receipts carried to Exhibit III	\$11,765.81

Exhibit IIIB

**The College of Physicians and Surgeons of Manitoba
Current Account
Statement of Cash Disbursements
For the Year Ended September 30, 1951**

Salaries:	
Registrar—Dr. M. T. Marfarland	\$ 2,799.96
Treasurer—Dr. T. H. Williams	500.00
	\$ 3,299.96
Meetings:	
Annual, October, 1950	\$ 611.80
Special, May, 1951	588.80
Executive Committee	281.60
Special Committees	223.80
	1,706.00
Legal fees	185.00
Amount paid to Manitoba Medical Association in respect of office rental and secretarial services, etc.	2,400.00
Janitor's services—annual and special meetings	18.00
Insurance premiums	10.00
Auditors' fees	150.00
Printing and stationery	536.78
Postage	151.71
Expenses of Registrar re meeting in Montreal	170.00
Expenses of assistant to the Registrar re interviews with Registrars' assistants in Eastern Canada and Great Britain	175.00
Salary of assistant to the Registrar	87.50
Miscellaneous office expense	126.54
General expenses	7.00
Exchange on cheques, etc.	4.40
Annual fee refunded	5.00
M.C.C. certificate fee refunded	5.00
Manitoba Medical Association re expense of The Workmen's Compensation Board Fee Taxing Committee	95.00
Total disbursements carried to Exhibit III	\$ 9,132.89

Motion: "THAT the Treasurer's and Auditors' Reports be adopted." Carried.

The question was raised whether it would be better to invest the College funds in securities such as stocks and real estate, since the dollar was devaluated, and the money invested in government bonds was declining instead of increasing. It was pointed out that Section 89 of the Medical Act binds the Council as to what securities may be purchased. After considerable discussion the following motion was passed.

Motion: "THAT the Finance Committee be requested to study and report on changes of Section 89 of the Medical Act, which would give Council authority to make stock or real estate investments." Carried.

4. Reports of Standing Committees and Their Consideration

A. Executive Committee

Dr. C. B. Stewart advised there had been one meeting of the Executive Committee held since the May Council meeting, and that the minutes had been circulated to the members.

Motion: "THAT the report of the Executive Committee be accepted." Carried.

Business Arising From Minutes of Executive Committee Held September 6, 1951

(a) Changes in the Medical Act

(i) Discontinuation of Internship Year

The Registrar advised that the solicitor had prepared the following changes in the Medical Act, and they had been discussed by the President, Registrar, and Solicitor. The University of Manitoba proposes to grant the M.D. degree at the end of the fourth year of Medicine, but cannot proceed until the protection of the Medical Act is assured.

"The said Act is amended by repealing the first six lines of Section 31 and substituting therefor the following:

'Every person who possesses one or more of the following qualifications and who has satisfactorily completed not less than twelve months' service in a resident medical capacity in one or more approved hospitals shall, upon payment of a fee to be fixed for each particular class by by-law of the Council, be entitled to be registered on producing to the Registrar satisfactory evidence of such qualifications, that is to say.'"

"Section 32 of the said Act is amended by repealing (b) thereof and substituting therefor the following:

'(b) Every person desirous of practising in Manitoba who is duly registered by the General Medical Council of Great Britain and who has satisfactorily completed not less than twelve months' service in a resident medical capacity in one or more approved hospital.'

"Section 33 of the said Act is hereby repealed and the following substituted therefor:

'33. Where there has been established under the legislation of the Parliament of Canada a medical register for Canada under the control of a medical council for Canada in which may be registered, subject to that legislation and the lawful requirements of that medical council, the names of medical and surgical practitioners who have satisfied the requirements for that purpose by way of examination or otherwise of the medical council and have satisfactorily completed not less than twelve months' service in a resident medical capacity in one or more approved hospitals, then

notwithstanding anything contained in this Act, any person duly registered in the register for Canada as a medical and surgical practitioner shall, without any further or other evidence of qualification, be entitled to be registered in the medical register of this province as a duly qualified medical and surgical practitioner, upon production of a certificate, under the hand of the registrar of the medical council for Canada, certifying that the person is so duly registered in the medical register for Canada, and satisfactory proof of the identity of the person, and upon payment of such fee as may be prescribed by the council of this province in that behalf."

"The said Act is amended by adding thereto as Section 72A thereof the following:

'In this Act the expression "approved" in relation to a hospital means approved for the time being by the council of the College of Physicians and Surgeons of Manitoba on the recommendation of the Faculty of Medicine of the University of Manitoba.'

"This Act shall come into force on the date it receives Royal assent."

It was agreed that Section 72A should be changed by placing a period after Manitoba, crossing out the phrase "on the recommendation," and inserting therefor "The Council may seek the advice." It was suggested that the University should be consulted before the final draft is completed, in case they may take serious objection.

Motion: "THAT the amendments to the Medical Act re internship be accepted in principle, subject to certain clarification of Section 72A, and that they be referred to the Executive Committee prior to introduction to Legislature." Carried.

(ii) Electoral Districts

The Registrar presented the following changes in the Medical Act, prepared by the solicitor, and discussed by the President, Registrar and solicitor.

"Section 4 of The Medical Act being Chapter 130 of the Revised Statutes of Manitoba, 1940, is repealed and the following substituted therefor:

'There shall be a Council of the College composed of

(a) Two members chosen by the Faculty of Medicine of the University of Manitoba who shall be selected at a meeting thereof duly called for that purpose; and

(b) Not fewer than sixteen members who shall be elected in the manner hereinafter set forth, and

(c) Such additional members as may be elected by the registered practitioners of homeopathy in accordance with the provisions hereinafter contained.'

"The said Act is further amended by repealing Section 5 thereof and substituting the following:

'(i) For the purpose of providing for proper representation on the Council, the Council shall divide the Province into an appropriate number

of electoral districts for the election of members of the Council other than those selected by the Faculty of Medicine of the University of Manitoba and may at any time thereafter create new electoral districts, alter, add to or reduce the area comprising an existing electoral district or combine any two or more existing electoral districts into a single district.

'(ii) One member shall be elected by the resident practitioners for each electoral district other than that district which includes the City of Winnipeg and adjoining municipalities named by the Council for which six members shall be so elected.

'(iii) If the Council creates a new electoral district the resident practitioners therein shall be entitled to elect a member of Council notwithstanding that by so doing the number of elected members of the Council exceeds sixteen.'

"The said Act is further amended by adding thereto as Section 5A thereof the following:

'(a) Election for members of the Council shall be held not later than one year following the coming into force of this Act on a date to be fixed by the present Council.

'(b) One-half of those members elected to the Council at such election shall hold office for four years and the remaining one-half for two years and it shall be determined by lot at a Council meeting to be held immediately following the election which of these are to hold office for four years and which for two years.

'(c) When selecting the representatives of the Faculty of Medicine of the University of Manitoba the said Faculty shall select one representative who will serve for a term of two years and the other representative for a term of four years.'

"The said Act is amended by repealing Section 9 thereof."

Motion: "THAT the amendments to the Medical Act concerning electoral districts be accepted." Carried.

(b) Specialist Register

The Registrar presented the following By-law prepared by the solicitor and discussed by the President, Registrar and solicitor.

"WHEREAS the College of Physicians and Surgeons of Manitoba deem it desirable that a Register of Specialists be established and maintained by the College.

"AND WHEREAS The Medical Act provides for the recording of higher degrees or additional qualifications of persons whose names appear on the Manitoba Medical Register.

"NOW THEREFORE BE IT ENACTED and it is hereby enacted as follows:

1. That the Council do establish and maintain a Register to be kept by the Registrar to be known as the Specialists Register in which shall be entered the names of all persons who have complied with the provisions hereof.

2. Any person whose name appears in the Manitoba Medical Register and who is either:

(a) A Fellow of the Royal College of Physicians and Surgeons of Canada; or

(b) A certificated specialist of the Royal College of Physicians and Surgeons of Canada;

shall be entitled to have his name entered in the Specialists Register.

3. Any person whose name appears in the Manitoba Medical Register may at any time before January 1st, 1954, make application to be registered as a specialist upon approval of his application by the special committee, appointed as hereinafter provided, may have his name entered in the Specialists Register.

4. The special committee hereinbefore referred to shall consist of six members as follows:

(i) Two representatives of the College of Physicians and Surgeons of Manitoba appointed by the Council and of whom one shall be the chairman of the committee;

(ii) Two representatives of and appointed by the Faculty of Medicine of the University of Manitoba; and

(iii) Two representatives of and appointed by the Manitoba Medical Association.

The members of the committee shall hold office until and including the 31st day of December, 1953, on which day the said committee shall cease to function. It shall be the duty of the committee to pass upon the qualifications of any applicant for registration in the Specialists Register to accept or reject the application.

5. On and after the 1st day of January, 1954, either a fellowship of the Royal College of Physicians and Surgeons of Canada or an enrollment therein as a certificated specialist shall be the accepted standard for registration as a specialist, provided, however, in special circumstances a person whose name appears in the Manitoba Medical Register and who is not a Fellow or a certificated specialist of the Royal College of Physicians and Surgeons of Canada may apply to have his name entered in the Specialists Register. The Council, after inquiry into the circumstances of the case, may in its sole discretion accept or reject such application and if accepted direct that upon payment of the prescribed fee the name of the applicant be entered in the Specialists Register.

DONE and PASSED this 13th day of October, A.D. 1951.

Motion: "THAT the amendments to the By-laws concerning the Specialist Register be accepted." Carried.

Motion: "THAT the fee of Five Dollars (\$5.00) be required for registration on the Specialist Register." Carried.

The Executive Committee had appointed Dr. Walton and Dr. Macfarland as the College representatives to the Specialist Register Committee,

but it was pointed out that as Registrar, Dr. Macfarland would be a member, ex-officio, of the Committee.

Motion: "THAT the representatives from the College to the Specialist Register Committee be Dr. C. H. A. Walton, who will act as chairman of the committee, and Dr. F. K. Purdie." Carried.

(c) Registrars' Meeting

The Registrar reported he had attended the meeting of the Registrars which convened in Montreal at the time of the C.M.A. meeting in June. British Columbia was represented by Dr. Lynn Gunn and Dr. Murray Blair, Alberta by Dr. W. Bramley-Moore, Saskatchewan by Dr. G. G. Ferguson, Manitoba by Dr. M. T. Macfarland, Ontario by Dr. R. T. Noble, Quebec by Dr. J. Paquin, New Brunswick by Dr. J. M. Barry, Newfoundland by Dr. Cluny Macpherson, and the Medical Council of Canada by Dr. J. Fenton Argue. Nova Scotia and Prince Edward Island were not represented.

The following subjects were discussed:

1. Uniform Licence Fee—no such thing between the provinces at the present time.

2. Enabling Certificates for foreign graduates—some of the other provinces are adopting the system which has been adopted in this province, having larger fee for Enabling Certificate with, not always, the same facility for having it applied to subsequent registration.

3. There is no uniform fee in our various provinces. There was considerable discussion about foreign doctors coming to Canada, it could have occupied more time. It is a tremendous problem and a satisfactory solution has not yet been found.

4. One Licence in Canada—the general feeling was that there should be some tendency towards uniformity. There could be some system arrived at by negotiation between the various provinces for one basic licence similar to the British Isles. It would be a very desirable thing. The Registrars are seeking to make recommendations at the meeting which will be held one year hence in Banff.

5. Question of reporting the information which one Registrar may have to other Colleges in connection with the qualifications, record on the books of the College against practitioners who apply for registration in another Province.

6. Dr. Argue dealt with various aspects of the Medical Council of Canada.

7. Dr. Bramley-Moore made some comment on the Alberta Medical Profession Act, which we were led to believe would be a substantial change in the Act, but when the amendments were presented, they were very much less drastic. Dr. Bramley-Moore commented that the application by the University in Alberta of the basic sciences, equivalent to our Basic Sciences Act, is an effective screening method of applicants from foreign schools.

8. Considerable discussion on Dr. Paquin's point which he raised of the excess number of doctors which we have from our own medical schools, and yet we are giving Enabling Certificates to those who are non-Canadians. Canadian citizenship is a requirement in Quebec.

Motion: "THAT the report on the Registrars' Meeting held in Montreal in June be adopted. Carried.

(d) Canadian Red Cross Blood Transfusion Service

The Registrar read a communication, dated September 21, 1951, over the signature of the Assistant National Director, through the Provincial Medical Director of the Blood Transfusion Service. The letter outlined the stands taken by the various other Canadian Provincial Medical Boards. It was pointed out that having a doctor available at short notice while the bleeding was being done by trained nurses was a suggestion of the College rather than a restriction, since the College has no authority over the nurses.

Motion: "THAT the Registrar be instructed to reply to the Canadian Red Cross Blood Transfusion Service, that after further consideration, the Council sees no need to change the stand previously taken." Carried.

(e) Michigan State Board of Registration

The Registrar presented a letter dated August 27, 1951, from the Michigan State Board of Registration, enclosing a copy of the latest revision of the Rules and Regulations of the Michigan State Board of Registration in Medicine, which have been approved by the Michigan Legislature. The Michigan Board is now prepared to admit the graduates of all approved or Class A Canadian Medical Schools to examinations, upon exactly the same basis as their own citizens and graduates of the medical schools of the University of Michigan and Wayne University or any Class A medical school within the continental United States, or upon the basis of inter-state reciprocal endorsement privileges, providing the examining and licensing boards of the provinces of Canada, either collectively or individually, will grant like privileges to graduates of the University of Michigan Medical School or the College of Medicine of Wayne University, who are licentiates of the Michigan State Board of Registration in Medicine, providing the applicants meet all the requirements of the respective boards.

The Registrar pointed out that this College already accepts graduates from Class A medical schools of the United States, to write the examinations of the Medical Council of Canada, and subsequent registration.

Motion: "THAT the correspondence with the Michigan State Board of Registration in Medicine be filed." Carried.

**(f) Hospital for Mental Diseases, Selkirk,
Re Dr.**

The Registrar presented a further letter under date October 10, 1951, from the Medical Superintendent, Hospital for Mental Diseases, Selkirk, advising that Dr. _____ is expected to remain in Hospital until the end of November, and that improvement to date would indicate that when he is ready for probation he will be competent to practise medicine.

Under present regulations there is no way of revoking the licence of a physician who is admitted to a mental hospital, and if Dr. _____ was released from hospital he would be able to begin practising at once. The Executive Committee agreed that the solicitor should prepare a By-law for automatic suspension from practice of a physician member who is admitted as a patient to a mental hospital, and the Registrar presented the following draft:

"WHEREAS the College of Physicians and Surgeons of Manitoba deem it advisable and necessary in the public interest to make provision for the suspension of the right of any person whose name appears in the Manitoba Medical Register to practice medicine and surgery in cases where such member is suffering from a mental disease or is of unsound mind.

"NOW THEREFORE BE IT ENACTED and it is hereby enacted as follows:

"If any person whose name appears in the Manitoba Medical Register who is or is about to be admitted to any hospital or psychopathic ward by reason of his suffering from a mental disease or is of unsound mind or in need of treatment therefor and the Council is satisfied by such enquiries as it shall see fit to make that such person is incompetent to carry on the practice of medicine or surgery, the Council may suspend such person and such suspension shall remain in full force and effect until revoked by the Council."

Notice of Motion by Dr. C. E. Corrigan: "THAT the By-law for automatic suspension of members suffering from mental disease or of unsound mind be adopted."

(g) Postgraduate Facilities for Commonwealth Physicians

The Registrar explained he had correspondence with the Medical Council of Pakistan, Acting High Commissioner for India in Canada, and Dr. S. C. Sen of the Indian Medical Association, inquiring about facilities for postgraduate students from those countries, who might come to Canada for further study. He also presented correspondence from the Deputy Minister of National Health and Welfare concerning the Colombo Plan, enclosing copies of applications for specialist medical personnel to assist in the establishment of postgraduate teaching centres in India and Ceylon.

It was agreed that this problem is educational rather than registration, and should be referred to the universities or hospitals.

(h) Resignation of Dr. J. S. Poole

Motion: "THAT the motion of the Executive Committee, accepting Dr. J. S. Poole's resignation from the Council, be endorsed." Carried.

Motion: "THAT a by-election be held in the Constituency of Neepawa." Carried.

B. Registration Committee

The Committee has met on two occasions since the Council met on May 23rd, 1951.

During the year:

(i) The registration of 2 medical students was approved.

(ii) 35 applications for registration were approved.

(iii) 13 temporary licences were granted.

(iv) 24 enabling certificates to write the examinations of the Medical Council of Canada were granted.

(v) 6 requests for enabling certificates were deferred.

There are no unusual or contentious problems to report.

Respectfully submitted,
C. H. A. Walton, M.D.,
Chairman.

Motion: "THAT the report of the Registration Committee be adopted." Carried.

C. Education Committee

No meeting.

D. Finance Committee

No meeting.

E. Legislative Committee**Borrowers — Registered Physicians****(a) Registered Physicians, Winnipeg and Suburbs**

		Actual borrowers	% of registered city physicians
Medical faculty	161	90	16.54%
Non-faculty	383	170	31.25%
Total registered city physicians	544	260	47.79%

Increase in number of borrowers since 1949-50, 3.

Total No. of items loaned to city physicians, 4,640 or 38.75% of all loans in 1950-51.

This represents a decrease of 593 items or 11.38% since 1949-50.

(b) Registered Rural Physicians

		Actual borrowers	% of registered rural physicians
Total rural physicians, 225		32	14.22%
Increase in number of borrowers since 1949-50		1	
Total No. of items loaned to rural physicians		164	

This represents a decrease of 75 items or 31.38% since 1949-50.

Circulation Statistics — Borrowers and Loans

Type of Borrowers	Total Possible Borrowers	Actual Borrowers	% of Possible Borrowers	Increase in Borrow- ers over 1949-50	Total items loaned (Bks. & Jnls.)	Increase or De- crease from 1949-50	% change from 1949-50
1. Registered Urban physicians (Winnipeg and suburbs)							
a. Faculty	161	90	55.95%				
b. Non-Faculty	383	170	44.38%				
	544	260	47.79%	3	4,640	Dec. 593	11.38%
2. Registered rural physicians	225	32	14.22%	1	164	Dec. 75	31.38%
Total registered Man. physicians	769	292	37.97%	4	4,804	Dec. 668	12.25%

No meeting since May Council meeting.

F. Library Committee

Dr. Ed. Johnson presented the following statistics as prepared by Miss Ruth D. Monk, Medical Librarian.

Statistics, 1950-51**Contents of Library**

1. BOOKS, BOUND and UNBOUND SERIALS (Periodicals): The approximate number of volumes in the library, exclusive of the duplicate files of serials:

1950-51	1949-50
17,889 volumes	17,327 volumes

Progress:

336 volumes, or an increase
of 1.93% over 1949-50

2. SERIALS (Periodicals). Titles currently received:

	1950-51	1949-50
Titles	331	327
Duplicates	4	5
	335	332

Progress:

Increase of 3 titles

Volumes added to the Library by THE COLLEGE OF PHYSICIANS AND SURGEONS' grant —141 volumes.

This is an increase of 4 volumes over last year's purchases on the above grant.

These 141 volumes comprise 41.34% of all purchases in 1950-51, and 31.40% of the total accessions.

Note — Registered Manitoba physicians have borrowed 4,804 of 11,973 items loaned in 1950-51, or 40.16%.

October 2, 1951.

Dr. Johnson advised that, on the recommendation of Dr. Bruce Chown, funds are being allocated to the various teaching departments, and that the heads are permitted to spend those funds without reference to the Committee.

Motion: "THAT the report of the Library Committee be adopted." Carried.

Re Grant to Medical Library Committee

A communication was read from the Chairman, Medical Library Committee, requesting the usual grant.

Motion: "THAT the College of Physicians and Surgeons of Manitoba grant to the Medical Library Committee, the sum of Seven Hundred and Fifty Dollars (\$750.00) for the year 1951-52, to be paid from the Investment Trust Account." Carried.

G. Taxing Committee

Dr. C. W. Wiebe advised he had interviewed Dr. _____ concerning a complaint through a lawyer about a bill he had rendered to a patient. He outlined the services given the patient, the charges made, which were not too great, and the amount already paid, and said that Dr. _____ had agreed not to insist on the collection of the balance. Interim report, no action necessary.

H. Discipline Committee

No meeting.

5. Reports of Special Committees and Their Consideration

A. Representatives to the Manitoba Medical Association Executive

Dr. Ed. Johnson advised he had attended meetings of the Manitoba Medical Association Executive but had nothing special to report.

Request for Grant for Extra Mural Postgraduate Work

A communication was read from the Manitoba Medical Association, requesting the usual grant for extra mural postgraduate work.

Motion: "THAT the College of Physicians and Surgeons of Manitoba grant to the Manitoba Medical Association, a sum up to Five Hundred Dollars (\$500.00) for the season 1951-52, for extra mural postgraduate work, to be paid from the Investment Trust Account." Carried.

Request for Grant for Fee Assessment Committee, Workmen's Compensation Board

A communication was read from the Manitoba Medical Association, requesting the grant for payment of the Fee Assessment Committee, Workmen's Compensation Board.

Motion: "THAT the College of Physicians and Surgeons of Manitoba grant to the Manitoba Medical Association, a sum up to One Hundred and Eighty Dollars (\$180.00) for the season 1951-52, for

payment of the Fee Assessment Committee, Workmen's Compensation Board." Carried.

B. Trustees of the Gordon Bell Memorial Fund

No report.

C. Representatives to the Committee of Fifteen

Dr. B. D. Best advised there had been a meeting of the Committee of Fifteen held since the last Council meeting, at which time some matters regarding the Workmen's Compensation Board Act were considered. It was considered that the Committee of Fifteen was too large and loose, and a subcommittee, headed by Dr. R. H. Cooper, was struck to look into certain minor changes. The presentation missed the meeting of Legislative Committee, and nothing further has come of this matter to the present time. Another brief meeting in March re Incorporation of Radiologists was reported to Council in May.

Motion: "THAT the report of the Representatives to the Committee of Fifteen be adopted." Carried.

D. Representative to the Committee of Selection in Medicine

The Committee met the first week in July at the University under the chairmanship of the President of the University.

It has not been possible as yet to arrange a system of student interviews but more data on the students has been secured and was available to the committee. The matter of interview of those taking the three-year pre-med course in our University can be arranged during their course but those having graduated in other courses such as Science and who have thereby qualified to enter medicine is not so easy. These applications and those from other Universities are received after the term ends and the applicants are largely not available in Winnipeg for interview, and it would entail loss of time and expense for them to be called in. However the situation is being further investigated for this group.

This year the first class of the 3-year pre-medicine students were received and the pre-selection of these following their second year has proven of help in weeding out the unsatisfactory students. This made the selection for entry to medicine easier this year and should result in better preparation for entry to medicine.

Respectfully submitted,

T. H. Williams, M.D., C.M.

Motion: "THAT the report of the Representative to the Committee of Selection in Medicine be adopted." Carried.

Dr. C. H. A. Walton said that the question raised in Dr. Williams' report about the applicant holding a Bachelors or other degree, and the implication is that he could not be interviewed and therefor may be turned down. It seems to be a wrong one. He said it had come to his attention that there is almost a liability to have a B.A. degree

to enter medicine. It is not uncommon to see a man get low marks at the beginning of his course, but by the time he gets his graduation he gets better marks. Because the Registrar produces a record for five years showing marks of 55 and not 65, he is turned down, but someone from pre-medical is accepted. A mature man with a B.A. degree, who has passed the required examinations should not be turned down.

Motion: "THAT we note from the report of our representative on the Committee of Selection in Medicine that the suggestion made by the College of Physicians and Surgeons of Manitoba for individual interviews of student applicants has not yet been arranged. The C.P. & S. is still of the opinion that this is desirable and should be brought into effect as soon as it can be arranged." Carried.

E. Representatives to the Medical Council of Canada

Dr. C. E. Corrigan reported that the Medical Council of Canada is made up of two representatives from each College of Physicians and Surgeons, and one from each medical school. There was a lot of routine business such as appointment of examiners. The business of the Council is expanding and more examiners and centres are required in both French and English. One of the contentious matters was the abolition of the paper in Pathology. This was defeated. One matter of interest to this Council was the erasure from the Register of the Medical Council of Canada of Dr. _____ along with two others from other parts of Canada. The suggestion was made that the Medical Council of Canada accept automatically the M.D. from any Canadian university, and be granted registration. The motion was to wipe out examinations for graduates of Canadian schools, but it was turned down. Two-thirds of the meeting was taken up with the discussion on the internship year. Notice of motion was given the previous year to the effect that no licence be granted until the applicant had undertaken a satisfactory interne year, either under or post graduate. It was moved that as of immediately no L.M.C.C. would be granted to any student or graduate who had not completed an interne year. Ontario were strong opponents. The University of Toronto gives the M.D. degree before internship year, and the C.P. & S. of Ontario says it is impossible for hospitals to employ internes until they are licensed. A motion was passed that action be deferred for one year on the matter, and it will come up again next year. The general feeling was that a licence to practise should not be granted until one year of internship was completed. The Universities of Alberta and Dalhousie have arrangement whereby the examinations are written in conjunction with the Medical Council of Canada, and after the internship year is completed, the M.C.C. examine the papers. It is understood that this arrangement will be satisfactory to

other universities. It is probable that the date of the Annual Meeting will be changed. It has always been held in the Fall, but will probably be held in the Spring of 1952.

Motion: "THAT the report of the Representatives to the Medical Council of Canada be adopted." Carried.

F. Representative to the University Senate

The Senate met on October 4, 1951, and this was the only meeting since Council last met in May, 1951. No problems relating to this College arose.

The Basic Sciences Committee of Senate met in June, 1951. Two chiropractic candidates failed in all subjects of the University exam in Basic Sciences. One of these candidates had also failed to pass in the special April exam.

The Basic Sciences Committee is studying the problem of applicants who did not intend to practise in Manitoba but who were applying for certification in order that they might obtain registration in Manitoba, and then obtain British licensure by reciprocity.

The retirement of Dr. A. T. Mathers from the Senate has led to his retirement from Chairmanship of the Basic Sciences Committee. A new Chairman will be appointed by the President of the University.

Respectfully submitted,

C. H. A. Walton, M.D.

Motion: "THAT the report of the Representative to the University Senate be adopted." Carried.

G. Representatives to the Cancer Institute

The Registrar explained that the President and Registrar of the C.P. & S. are ex-officio members of the Board of the Cancer Institute. Reports were submitted during the Annual Meeting of the Manitoba Medical Association, and literature was made available by the Institute. The Registrar requested permission to read into the record portions of these reports.

"The most notable achievement in the past year has been the establishment of a new Cancer Diagnostic Service, achieved by co-operation between the Cancer Institute, the Association and the hospitals concerned.

(a) Cancer Diagnostic Services for residents of Manitoba outside of the Greater Winnipeg area were initiated December 1, 1950, with units established at the Winnipeg General and St. Boniface Hospitals. Should the volume of work warrant, other Diagnostic Centres may be set up in other hospitals, including those outside of Winnipeg.

(b) At each hospital the staff consists of a part-time Cancer Teaching Fellow appointed by the University, paid by the Institute, and also a Secretary. Because the latter cannot be kept busy full-time, at present her services are also used by the hospital for cancer follow-up and record purposes.

For the purposes of liaison between the hospitals, and to insure smooth day-to-day operation of the Diagnostic Services, a Medical Services Committee was appointed, consisting of three doctors from each hospital who are especially interested in the cancer problem. In practice, the Cancer Teaching Fellow usually consults the men at the hospital concerned regarding problems which arise, and liaison is carried out through the staff of the Manitoba Cancer Institute.

(c) Patients must present special referral forms upon arrival at the hospital. This insures that only those patients will be investigated who have been referred by their doctors.

(d) The service is restricted to diagnosis. When the diagnosis has been made treatment is carried out on a public ward basis, or, if the patient prefers and can afford to do so, he may choose his own doctor and receive treatment on a private basis.

Although the monthly case load is small, it is increasing gradually as doctors become familiar with the advantages of the Cancer Diagnostic Services. In this respect there is a resemblance to the Biopsy Service which, in 1938—the first full year of operation—processed 25 specimens as compared to 1,594 during the past year.

(e) Before the Cancer Diagnostic Services were established a fear was expressed that a high proportion of obviously nonmalignant conditions would be investigated. So far, there is no indication that this fear will materialize because nearly 50% of the patients seen have been found to have cancer."

"Who, How, and Where of the Cancer Diagnostic Services

Who:

Any resident of Manitoba, outside of the Greater Winnipeg area, is eligible for referral to the Cancer Diagnostic Services if you, his doctor, suspects he may have cancer, and consider the cost of the required investigation to be beyond his means. This does not mean that ALL such suspects should be referred. If you can carry out the necessary diagnostic procedures locally, by all means do so. The purpose of the C.D.S. is to help you with your problem cases, and to investigate those for which your facilities are inadequate. The decision as to the patient's financial eligibility is primarily yours, because you are the only person who has any idea as to what sort of investigation is necessary in any specific case, and the approximate cost thereof. If the patient has an oil well hidden away in his back yard, which you don't know about, the municipal authorities will probably get in touch with you before countersigning the referral card. C.D.S. is intended to encourage you to have those of your patients investigated in whom your consideration for their pocketbooks

might otherwise out-weigh your nagging suspicions of cancer.

How:

Having decided that you have a cancer suspect whom you would like to refer, simply fill in the special referral form, have it counter-signed by the proper municipal official, and ask the patient to take it with him to the hospital of your choice. The stub on the referral form is provided for your convenience in keeping a record of the case if you so desire.

At C.D.S. your patient will be interviewed by the Cancer Teaching Fellow who will then see that further investigation as indicated is carried out by consultants in the required specialties. When the diagnosis has been established, you will be sent a full report on the case.

There is no charge to your patient for this service. The cost to the hospitals of all diagnostic procedures is met by funds provided by federal, provincial and municipal bodies. As this includes hospitalization the municipality concerned will not receive a bill from the hospital, as they ordinarily do in the case of public ward patients. The medical services are provided without remuneration, by all the doctors participating in the work of the clinics.

NOTE THAT THE SERVICE PROVIDED BY THE C.D.S. IS LIMITED TO DIAGNOSIS. The patient, if he can afford to do so, has the privilege of electing to have any necessary treatment carried out by the doctor of his own choice. If he cannot afford this choice, the usual arrangements for the medical care of indigents apply.

Where:

Two units of the C.D.S. have been established—one at the St. Boniface Hospital, and the other at the Winnipeg General Hospital. Please advise your patient to go directly to the hospital of your choice.

Further information and additional referral forms may be obtained from the Cancer Teaching Fellow at either of these hospitals, or from the Director of Medical Services, at the Manitoba Cancer Relief and Research Institute.

Constructive criticism is quite in order, send it to: The Manitoba Cancer Relief and Research Institute, 442 William Avenue, Winnipeg, Man."

Motion: "THAT the report of the Representatives to the Cancer Institute be adopted." Carried.

H. Representatives to the Liaison Committee—M.M.A. & C.P. & S.

The Registrar reported that no meeting of the Liaison Committee had been called, but it would be necessary to arrange a meeting in the near future regarding the adjustment of the payment to the Manitoba Medical Association for rent, light, phone, etc., preferably before the end of the month.

Motion: "THAT a meeting of the Liaison Committee—M.M.A. & C.P. & S. be arranged as soon as possible." Carried.

1. Representative to the Canadian Arthritis and Rheumatism Society—Manitoba Division

The Registrar explained that the Society had requested a representative from this Council to act on their Board, and he had been appointed by Council. He said there was nothing further to report since the meeting of the Executive on September 6th last.

6. Election of Officers and Standing Committees

Officers

(a) President:

"THAT Dr. F. K. Purdie be appointed President." Carried.

(b) Vice-President:

"THAT Dr. C. E. Corrigan be appointed Vice-President." Carried.

(c) Registrar:

"THAT Dr. M. T. Macfarland be appointed Registrar." Carried.

(d) Treasurer:

"THAT Dr. T. H. Williams be appointed Treasurer." Carried.

Nomination Committee to Strike Standing Committees

The President appointed Doctors C. E. Corrigan, Ed. Johnson and F. K. Purdie as a committee to strike Standing Committees.

Dr. I. Pearlman vacated the Chair in favour of the newly elected President, Dr. F. K. Purdie.

Standing Committee

(a) Registration Committee:

Dr. C. H. A. Walton, Chairman
Dr. C. E. Corrigan
Dr. W. J. Boyd

(b) Education Committee:

Dr. B. D. Best, Chairman
Dr. A. L. Paine
Dr. W. J. Boyd

(c) Finance Committee:

Dr. T. H. Williams, Chairman
Dr. C. W. Wiebe
Dr. B. Dyma

(d) Legislative Committee:

Dr. C. W. Wiebe, Chairman
Dr. A. L. Paine
Dr. I. Pearlman
Dr. T. W. Shaw
Dr. W. J. Boyd

(e) Discipline Committee:

Dr. C. E. Corrigan, Chairman
Dr. C. W. Wiebe
Dr. G. P. Armstrong
Dr. Wm. Malyska
Dr. H. Guyot

(f) Executive Committee:

Dr. C. B. Stewart, Chairman
Dr. G. P. Armstrong
Dr. Ed. Johnson
Dr. C. H. A. Walton
Dr. B. D. Best

(g) Library Committee:

Dr. Ed. Johnson

(h) Taxing Committee:

Dr. C. B. Stewart, Chairman
Dr. B. Dyma
Dr. C. S. Crawford

Motion: "THAT the appointment of Standing Committees be accepted." Carried.

Election of Special Committees

(a) Representatives to the Manitoba Medical Association Executive

Motion: "THAT our representatives to the Manitoba Medical Association Executive be Dr. C. B. Stewart and Dr. Ed. Johnson." Carried.

(b) Representatives to the Committee of Fifteen

"THAT our representatives to the Committee of Fifteen be Dr. B. D. Best, Dr. I. Pearlman and Dr. Ed. Johnson." Carried.

(c) Representative to the Committee of Selection in Medicine

"THAT our representative to the Committee of Selection in Medicine be Dr. T. H. Williams." Carried.

(d) Representatives to the Medical Council of Canada

The Registrar explained that with the resignation of Dr. J. S. Poole, it would be necessary to appoint another representative to the Medical Council of Canada, until the representatives are appointed again in 1952 for four years. Dr. C. E. Corrigan is the other representative.

Motion: "THAT Dr. C. H. A. Walton be appointed to replace Dr. J. S. Poole as our representative to the Medical Council of Canada, for the unexpired term." Carried.

(e) Representative to the University Senate

At the Council Meeting held May 23rd, 1951, Dr. C. H. A. Walton was appointed our representative to the University Senate, to take effect at the beginning of the University year.

(f) Representatives to the Liaison Committee—M.M.A. & C.P. & S.

Motion: "THAT our representatives to the 'THAT our representatives to the Liaison Committee—M.M.A. & C.P. & S. be Dr. B. D. Best, Dr. I. Pearlman and Dr. Ed. Johnson." Carried

(g) Representative to the Canadian Arthritis and Rheumatism Society, Manitoba Division

"THAT our representative to the Medical Advisory Committee, Canadian Arthritis and Rheumatism Society, Manitoba Division, be Dr. M. T. Macfarland." Carried.

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Each tablet contains:

Acetylsalicylic Acid 3 gr.
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Codeine Phosphate $\frac{1}{4}$ gr.

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C.T. No. 260A

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Phenacetine 2 gr.
Caffeine Citrate $\frac{1}{4}$ gr.
Codeine Phosphate $\frac{1}{2}$ gr.

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Representative: Mr. S. M. Fairclough, 542 Ingersoll Street, Winnipeg

Appointment of Auditors:

"THAT the appointment of auditors be deferred until the May meeting of Council." Carried.

Appointment of Scrutineers:

"THAT Dr. Elinor Black and Dr. A. R. Birt be appointed scrutineers, and Dr. D. Swartz and Dr. W. T. Dingle be appointed alternate scrutineers, for the ensuing year." Carried.

7. Reading of Communications, Petitions, etc., to the Council**A. Communication From Mr. B. V. Richardson, Re Setting up a Medico-Legal Association**

A communication was presented from Mr. B. V. Richardson who has been appointed by the Canadian Bar Association to chairman, so far as the lawyers are concerned, a Medico Legal Conference or Association. He pointed out there was a Medico-Legal Society of Great Britain, and a similar organization had been formed in the City of Toronto.

It was the feeling of Council that such an organization would be a very good thing, and the Registrar was requested to find out whether the Law or Bar Society was the legal body equivalent to the C.P. & S., and an informal preliminary meeting be held.

Motion: "THAT the Executive Committee be instructed to pursue the question of a Medico-Legal Association at the discretion of the Chairman or the President." Carried.

B. Communication From College of Physicians and Surgeons of Quebec, Re Medical Council of Canada Granting Registration of Graduates From Canadian Medical Schools Without Examination

The Registrar presented communication from Dr. Jean Paquin, Registrar, C.P. & S., Quebec, advising that the Board of Governors adopted unanimously the motion submitted to the Medical Council of Canada by the Association of Canadian Medical Colleges. "... that the Association of Canadian Medical Colleges request the Medical Council of Canada to give serious consideration to the registration of all medical graduates of accredited Canadian medical schools without further examinations." He stated that his College believes that the adoption of this motion by the twelve Universities and the ten Medical Licensing Bodies throughout Canada would be very beneficial to our students and physicians and would safeguard our rights and privileges.

Dr. C. E. Corrigan advised that the motion had been turned down by the Medical Council of Canada at the meeting in September.

Motion: "THAT no action be taken." Carried.

C. Request From Dr. _____ for Refund of Registration Fee

The Registrar presented a letter from Dr. _____, advising that when he took out his registration on September 17th, he had expected to be practising

in Manitoba, but his plans changed, and he is now going to Saskatchewan to practise. He advised he saw approximately 15-20 patients in the 12 hours in actual practise, and requested that his registration fee be refunded, so that it might be applied to his registration in Saskatchewan.

Motion: "THAT the sum of Ninety Dollars (\$90.00) be refunded to Dr. _____, and that the balance of Ten Dollars (\$10.00) be retained as payment of a Temporary Licence." Carried.

D. Re Waiver of Annual Fees for Dr. _____

A communication was presented from Dr. _____ advising he retired completely from medical practice on April 15, 1944.

Motion: "THAT the annual fees of Dr. _____ for 1950, 1951, and subsequent years be waived." Carried.

E. Communication From Manitoba Medical Association, Re Complaint Against a Doctor

The Registrar presented correspondence received from the Manitoba Medical Association, and advised that the complainant had communicated with the M.M.A., the M.M.A. representative to the District Society, and the Department of Health and Public Welfare, which is now making an investigation.

Motion: "THAT the correspondence be handed to the Discipline Committee for study, and that it be filed for future reference." Carried.

8. Inquiries**A. Inquiries From Graduates of European Medical Schools**

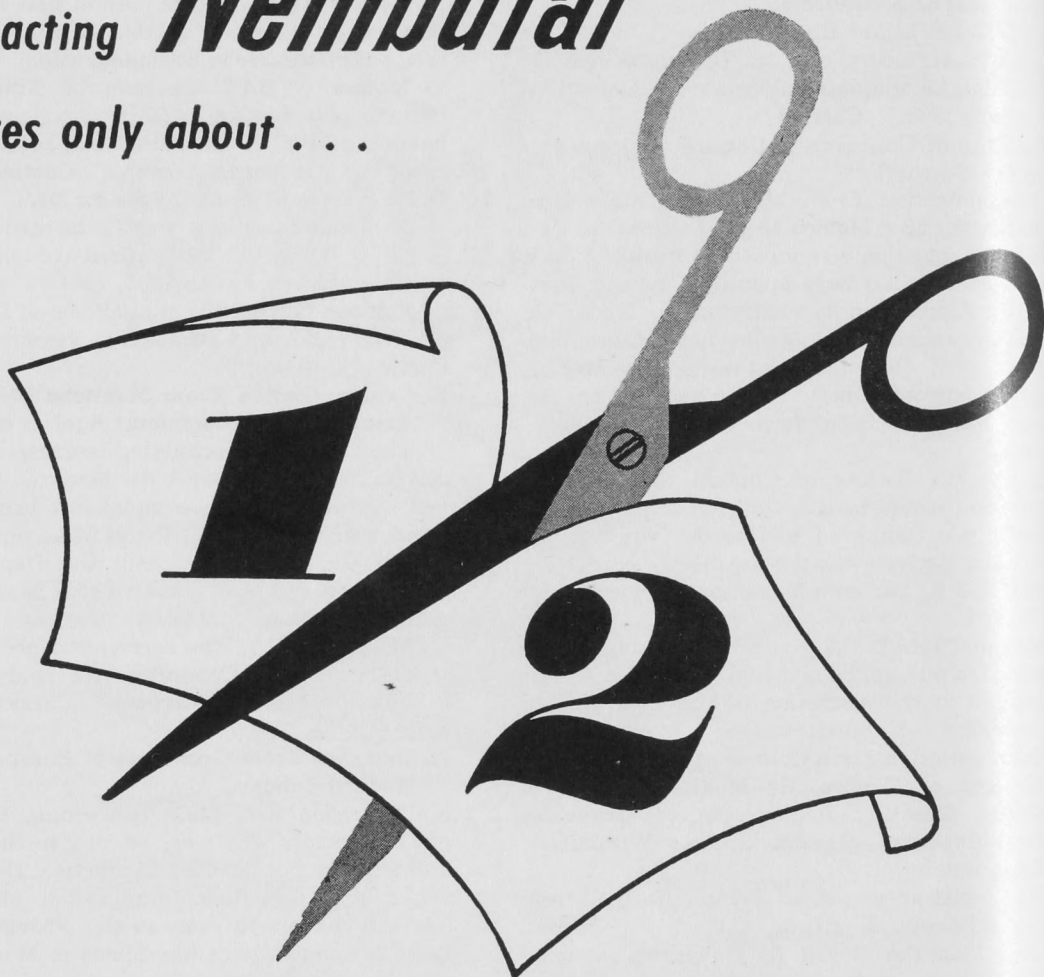
Discussion took place concerning the number of D.P. doctors who were coming to the Province, and who are not licensed to practise. The Registrar stated that Canadian Immigration Missions are advising doctors to write to this Province because there is a shortage of physicians in Manitoba. He said he was receiving an average of one letter a day from foreign graduates inquiring concerning registration in Manitoba, and was replying that there is not a shortage of doctors, and sending a copy of his reply to the Immigration Mission which referred the doctor.

Dr. Johnson said that D.P. doctors employed in mental hospitals are paid the same as third year students, and are given the same responsibilities such as clinical clerks and technicians. They are employed on a temporary basis for three years, after which they must be eligible for permanent registration.

The Registrar said he had reason to believe that some of these doctors were doing work without licence, when our own graduates would be expected to be licensed.

Motion: "THAT the Registrar be empowered to investigate, by correspondence or otherwise, and if there are physicians practising without a licence, proper steps should be taken to correct it." Carried.

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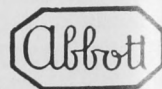
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9. Notice of Motion:

(a) **Notice of Motion** by Dr. C. E. Corrigan: "THAT the By-law for automatic suspension of members suffering from mental disease or of unsound mind be adopted."

10. Motions of Which Notice Has Been Given at a Previous Meeting

A. The following Notice of Motion was given by Dr. Ed. Johnson at the May meeting of Council:

"THAT Section 1(0) of the By-laws be changed, giving the Council power to set the date of the annual Council meetings."

Motion: "THAT the change in Section 1(0) of the By-laws be accepted." Carried.

B. The following Notice of Motion was given by Dr. C. E. Corrigan at the May meeting of Council:

"THAT reconsideration be given to the motion concerning internships passed at a meeting of the Education Committee, October 18, 1948, and approved by Council, October 20, 1948."

It was agreed that the motion concerning internship should be left on the records of the College until the changes in the Medical Act are in effect.

Motion: "THAT the Notice of Motion given by Dr. C. E. Corrigan be deferred until the May meeting of Council." Carried.

C. The following Notice of Motion was given by Dr. C. H. A. Walton at the May meeting of Council:

"THAT for graduates other than those of the University of Manitoba, the fee for an Enabling Certificate be Twenty-five Dollars (\$25.00), and upon subsequent registration Twenty Dollars (\$20.00) be credited to the registration fee."

Motion: "THAT the fee for an Enabling Certificate to graduates other than those of the University of Manitoba be Twenty-five Dollars (\$25.00), with Twenty Dollars (\$20.00) being credited to future registration, retroactive to July 18, 1951." Carried.

D. The following Notice of Motion was given by Dr. J. S. Poole at the May meeting of Council:

"THAT the suggested changes in the medical electoral districts be adopted."

Motion: "THAT the Notice of Motion accepting the new medical electoral districts be adopted." Carried.

11. Unfinished Business

None.

12. Miscellaneous and New Business**A. Purchase of Filing Cabinet**

Motion: "THAT a four-drawer steel filing cabinet be purchased." Carried.

B. Payment of Janitor

Motion: "THAT the sum of Five Dollars (\$5.00) be paid to the janitor for his services." Carried.

C. Payment of Luncheon

Motion: "THAT the sum of Thirteen Dollars (\$13.00) be paid to the Medical Canteen for the luncheon." Carried.

D. Amount to be Paid to Council Members for This Meeting

Motion: "THAT the amounts paid to members of Council for attendance at this meeting be the same as for the May meeting." Carried.

E. Motions Re Salaries and Amount to be Paid to the M.M.A. Each Month

Motion: "THAT Dr. M. T. Macfarland's emolument be Three Hundred Dollars (\$300.00) per month from January 1st, 1952." Carried.

Motion: "THAT Dr. T. H. Williams' salary for the coming year be Five Hundred Dollars (\$500.00) per annum." Carried.

Motion: "THAT Miss Jean Allison be paid a salary of One Hundred and Eighty-five Dollars (\$185.00) per month from January 1st, 1952." Carried.

Motion: "THAT the Executive Committee be empowered to act on receiving the report of the Liaison Committee—M.M.A. & C.P. & S., concerning the amount to be paid the M.M.A. each month for rent, light, phone, etc." Carried.

F. Adjournment

Motion: "THAT the meeting be adjourned" Carried.

**By-Law on
Specialists Register
See Page 275**

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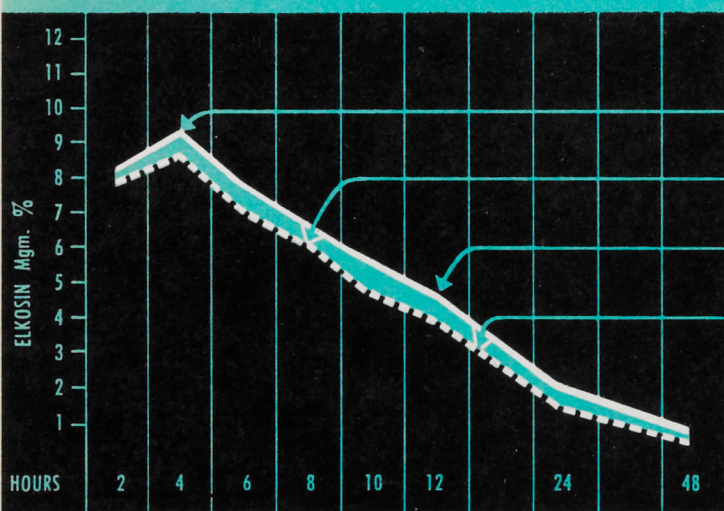
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Levels obtained following single oral dose of 0.05 Gm./kg.

Chart adapted from Prior, J. A., and Saslaw, S.:
J. Lab. & Clin. Med. Sept. 1951.

Ciba

Department of Health and Public Welfare Comparisons Communicable Diseases — Manitoba (Whites and Indians)

DISEASES	1951		1950		Total	
	Jan. 27 to Feb. 23, '52	Jan. 1 to Jan. 26, '52	Jan. 28 to Feb. 24, '51	Jan. 1 to Jan. 27, '51	Jan. 1 to Feb. 23, '52	Jan. 1 to Feb. 24, '51
Anterior Poliomyelitis	0	0	0	0	0	0
Chickenpox	115	138	145	175	253	320
Diphtheria	0	1	2	1	1	3
Diarrhoea and Enteritis, under 1 yr.	7	1	14	2	8	16
Diphtheria Carriers	0	0	1	0	0	1
Dysentery—Amoebic	0	0	0	0	0	0
Dysentery—Bacillary	1	0	2	1	1	3
Erysipelas	1	3	2	1	4	3
Encephalitis	0	0	0	0	0	0
Influenza	6	5	85	4	11	89
Measles	78	146	519	322	224	841
Measles—German	3	0	13	3	3	16
Meningococcal Meningitis	0	0	3	0	0	3
Mumps	182	151	193	146	333	339
Ophthalmia Neonatorum	0	0	0	0	0	0
Puerperal Fever	0	0	0	0	0	0
Scarlet Fever	58	67	114	60	125	174
Septic Sore Throat	9	1	1	4	10	5
Smallpox	0	0	0	0	0	0
Tetanus	0	0	0	0	0	0
Trachoma	0	0	0	0	0	0
Tuberculosis	42	27	59	27	69	86
Typhoid Fever	0	0	0	0	0	0
Typhoid Paratyphoid	0	0	0	0	0	0
Typhoid Carriers	0	0	0	0	0	0
Undulant Fever	0	0	1	0	0	1
Whooping Cough	62	31	42	23	93	65
Gonorrhoea	88	93	85	114	181	199
Syphilis	10	8	26	12	18	38
Jaundice (Infectious)	4	2	0	0	6	0

Four-Week Period January 27th to February 23rd, 1952

DISEASE (White Cases Only)	*771,815 Manitoba	*861,000 Saskatchewan	*3,825,000 Ontario	*2,952,000 Minnesota
*Approximate population				
Anterior Poliomyelitis	1	1	14	
Chickenpox	115	212	2218	
Diarrhoea and Enteritis, under 1 yr.	7			
Diphtheria	1	1	9	
Diphtheria Carriers				
Dysentery—Amoebic			7	
Dysentery—Bacillary	1	26	8	5
Encephalitis Epidemica	1	1	1	
Erysipelas	1	1	5	
Influenza	6	5	7	2
Infectious Jaundice	4		15	21
Measles	78	371	1976	107
German Measles	3	72	532	
Malaria				2
Meningitis Meningococcal			10	10
Mumps	182	346	1833	
Ophthal. Neonat.				
Puerperal Fever				
Scarlet Fever	58	301	173	195
Septic Sore Throat	9	59	2	26
Smallpox				
Tetanus				
Trachoma				
Tularemia				1
Tuberculosis	42	31	98	36
Typhoid Fever		2	2	
Typh. Para-Typhoid				1
Typhoid Carrier				
Undulant Fever			2	
Whooping Cough	62	40	129	17
Gonorrhoea	88		171	
Syphilis	10		63	

*DEATHS FROM REPORTABLE DISEASES

For the Month of February, 1952

Urban—Cancer, 45; Diphtheria, 1; Influenza, 4; Pneumonia, Lobar, 3; Pneumonia (other forms), 4; Pneumonia of Newborn, 1; Tuberculosis, 6; Benign Neoplasms, 1. Other deaths under 1 year, 16. Other deaths over 1 year, 172. Stillbirths, 12. Total, 200.

Rural—Cancer, 30; Influenza, 2; Measles, 1; Pneumonia, Lobar, 7; Pneumonia (other forms), 8; Pneumonia of Newborn, 1; Tuberculosis, 9; Benign Neoplasms, 1; Tydatid Disease, 1; Diarrhoea and Enteritis, 2; Diarrhoea of Newborn, 2. Other deaths under 1 year, 17. Other deaths over 1 year, 148. Stillbirths, 4. Total, 169.

Indians—Cancer, 1; Influenza, 1; Pneumonia (other forms), 3. Other deaths under 1 year, 4. Other deaths over 1 year, 6. Stillbirths, 1. Total, 11.

The above figures include 1951 registrations received in February, 1952.

Chickenpox is still quite prevalent. A few cases are being reported in adults. These older age cases should be carefully examined for the possibility of smallpox.

Mumps and Scarlet Fever are still with us!

Whooping Cough cases are quite common.

Gonorrhoea and Syphilis still on the decrease.

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- Academy—International of medicine and dentistry. Cumulative index of professional motion picture films.
Academy Publishing Bureau, 1950. 137 p.
- Adler, Alexandra. Guiding human misfits. Philosophical Library, 1948. 114 p.
- Alexander, Franz. Fundamentals of psychoanalysis. Norton, 1948. 312 p.
- Alexander, Franz. Studies in psychosomatic medicine. Ronald Press, 1948. 568 p.
- Allen, Clifford. The sexual perversions and abnormalities. 2nd ed. Oxford University Press, 1949. 346 p.
- Allison, D. R. and Gordon R. G. Psychotherapy; its uses and limitations. Oxford University Press, 1950. 160 p.
- Altschule, M. D. Physiology in diseases of the heart and lungs. Harvard University Press, 1950. 368 p.
- American Medical Association. Council on physical medicine and rehabilitation. Handbook of physical medicine and rehabilitation. Blakiston, 1950. 573 p.
- Anderson, C. M. Emotional hygiene. 4th ed. Lippincott, 1948. 266 p.
- Ashford, Mahlon. Trends in medical education. The Commonwealth Fund, 1949. 320 p.
- Ayman, David. Arterial hypertension. Oxford University Press, 1948. 93 p.
- Babkin, B. P. Pavlov. University of Chicago Press, 1949. 365 p.
- Barton, L. G. and others. The Barton forceps. Free Press Printing Co., 1949. 152 p.
- Bauer, Julius. Differential diagnosis of internal diseases. Grune and Stratton, 1950. 866 p.
- Baxter, J. S. Aids to surgical anatomy. 3rd ed. Bailliere, Tindall and Cox, 1950. 203 p.
- Beaumont, G. E. Applied medicine. Churchill, 1950. 541 p.
- Bellak, Leopold. Dementia praecox. Grune and Stratton, 1948. 456 p.
- Billig, H. E. and Loewendahl, Evelyn. Mobilization of the human body. Stanford University Press, 1949. 65 p.
- Bernheim, B. M. The story of the Johns Hopkins; Four great doctors and the medical school they created. Whittlesey House, 1948. 235 p.
- Bockus, H. L. Postgraduate gastroenterology. Saunders, 1950. 670 p.
- Boring, E. G. and Langfeld, H. S. and Weld, H. P. Foundations of psychology. Wiley, 1948. 632 p.
- Bourne, G. H. Aids to histology. 5th ed. Bailliere, Tindall and Cox, 1950. 158 p.
- Boyd, William. The pathology of internal diseases. 5th ed. Lea and Febiger, 1950. 866 p.
- Bright, Richard. Original papers of Richard Bright on renal disease, ed. by A. Arnold Osman. Oxford University Press, 1937. 172 p.
- British Medical Association. General practice and the training of the general practitioner. The Association, 1950. 88 p.
- Brock, Samuel. Injuries of the brain and the spinal cord and their coverings. 3rd ed. Williams and Wilkins, 1949. 783 p.
- Brodal, Alf. Neurological anatomy in relation to clinical medicine. Clarendon Press, 1948. 496 p.
- Brookes, V. J. and Alyea, H. D. Poisons. Van Nostrand, 1946. 209 p.
- Browne, F. J. Postgraduate obstetrics and gynaecology, 1950. Butterworth, 1950. 501 p.
- Buchler, Walter. Parkinson's disease. Walter Buchler, 1950. 79 p.
- Burch, G. E. A primer of venous pressure. Lea and Febiger, 1950. 174 p.
- Burrows, Harold. Biological actions of sex hormones. 2nd ed. Cambridge University Press, 1949. 615 p.
- Calverton, V. F. The making of modern man. The modern library, 1931, 879 p.
- Canada. Department of National Health and Welfare. A guide to the diagnosis of occupational diseases. King's Printer, 1949. 317 p.
- Cannon, W. B. and Rosenbluth, Arturo. The super-sensitivity of denervated structures. Macmillan, 1949. 245 p.

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